HOUGHTON NUMBER. 51st Annual Meeting, Houghton, Aug. 15, 16, 17



# The Journal OF THE Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOLUME XV—No. 7
WHOLE NUMBER 167

GRAND RAPIDS, MICH., JULY, 1916

YEARLY SUBSCRIPTION, $3.50
SINGLE COPY, 50c

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Office of Publication, 91 Monroe Ave. Grand Rapids, Mich.
Next Annual Meeting, Houghton, 1916

Entered as second-class matter March 12, 1913, at Grand Rapids, Mich., under the Act of March 3, 1879

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## STATE OF MICHIGAN

### EXECUTIVE OFFICE

LANSING

## TUBERCULOSIS PROCLAMATION

The Nineteen Fifteen Michigan Legislature voted one hundred thousand dollars for an anti-tuberculosis campaign. Under the direction of the State Board of Health magnificent progress has been made in securing the best possible results. Michigan physicians, professional nurses, public school teachers, social workers and civic organizations, have cheerfully responded to Michigan's call for health "preparedness." Thousands who supposed they were not afflicted with this dread disease, have in free clinics discovered their imminent danger in time to conquer this arch enemy. The predisposed have been taught the laws of health, and all of the people who believe in "safety first" have learned the tremendous value of air and sunshine. In many of our Michigan cities open-air schools have been established and through these schools thousands of homes have been encouraged to a greater love for God's great out of door sanitarium.

Again I make a patriotic appeal to all the physicians of Michigan. I suggest that on Thursday, August tenth, any person in Michigan desiring a medical examination whereby he may ascertain whether he has any of the symptoms of tuberculosis, may have such examination and advice by asking a physician for it.

Therefore, I, WOODBRIDGE N. FERRIS, Governor of the State of Michigan, do hereby designate Thursday, August tenth, A. D. 1916, as Tuberculosis Day, at which time all physicians engaged in the practice of medicine are requested to render this service without charge.

Given under my hand and the Great Seal of the State, this eighth day of June in the year of our Lord one thousand nine hundred sixteen, and of the Commonwealth the eightieth.

(GREAT SEAL)

WOODBRIDGE N. FERRIS
Governor

By the Governor:

COLEMAN C. VAUGHAN
Secretary of State

## *Original Articles*

# TOXEMIAS IN PREGNANCY.

FRANCIS C. GOLDSBOROUGH, M.D., F.A.C.S.
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It is not my intention today to attempt to deal with the whole subject of the toxemias that occur in the latter months of pregnancy, but particularly to discuss the importance of attempting a differentiation, both clinical and pathological, between eclampsia and nephritic toxemia. By eclampsia, meaning to include the pre-eclamptic toxemia, or, as it is more often call, *the* toxemia of pregnancy, as well as its more advanced stage, and by nephritic toxemia, embracing both the early stages, and the later ones, where we have uremia with convulsions and coma.

I realize that there are many writers, especially among the French, and Ewing and others in this country, who hold that all of the various toxic disturbances that occur during pregnancy are simply stages or graduations of a single process. But, on the other hand, there are many, especially among the German writers, and Williams and others in this country, who attempt to differentiate these various conditions into certain well-defined groups.

This whole subject is such a difficult one and one about which we really know so little, that it seems to me the more we can subdivide it the nearer we are to a solution.

The time may come when we will find that there is *one* toxin that causes all of these conditions, or we may discover a separate toxin for each of them. *But,* until that time arrives, it will be better to divide them up into as many groups as possible, as this will encourage a more careful study of each case, and give us a better understanding of this subject.

There is a valuable practical point in attempting a differentiation between the eclamptic and the uremic toxemias, because of our better ability to give a correct prognosis for a future pregnancy, this naturally being the patient's chief anxiety, and the first thing about which we are asked, during the convalescence.

We know that eclampsia gives a certain immunity and is not likely to recur in a subsequent pregnancy. On the other hand, if a patient once suffers from a nephritic toxemia, this is likely to return with each pregnancy.

Further, we can be pretty certain if a patient gives a history of suffering from toxemia each time she is pregnant, that we are dealing with a nephritic toxemia.

*Pathology.*—If we now consider the pathological picture in these cases that come to autopsy, we are able to distinguish two groups, according as we find certain changes in the liver or not. These changes consist of larger or smaller areas of necrosis either with or without hemorrhage, and the areas are situated at the periphery of the liver lobule.

Attention is specially called to these by Schmol, who considers them characteristic of eclampsia and claims that they occur in no other disease. In addition to these lesions of the liver we also have more or less marked changes in the kidney, which later, however, may not be very pronounced. There are also other lesions present, but for our purpose we need not consider them here.

In the second group we do not find these necrotic changes in the liver, but some form of nephritis.

I think this is sufficient to indicate that pathologically we can distinguish eclampsia from nephritic toxemia.

*Clinical Picture.*—Generally speaking, *clinically* we meet with several types.

*One,* probably the most common, in which the onset is practically a convulsion. However, in these cases, on careful inquiry one usually finds that premonitory symptoms have been present, but of such slight nature, as to be ignored by the patient.

*Another* type consists of symptoms of toxemia such as headache, edema, which may be general and extreme, visual disturbances, and epigastric pain. These symptoms may persist for a longer or shorter time, and may terminate in one of several ways. Under treatment, they may entirely clear up, and the pregnancy go on to a happy conclusion, or they may only partially subside till after the end of pregnancy, or they may become more severe, and end in convulsions and coma, which the patient may, or may not survive.

In a *third* type, we may get various symptoms of toxemia, ending in coma without convulsions.

In certain of these cases, from the clinical picture and the ordinary clinical examinations, we can say *"This is elcampsia."* Whereas, in certain others, we can say *"This is uremia."* But there will be many cases in which we will be in doubt as to whether we are dealing with eclampsia or uremia, or just how much kidney involvement is present. Of course, we must remember that occasionally, an eclampsia will

damage a kidney to such an extent that it does not recover, but leaves a chronic nephritis, but this is rare.

*Urine Findings.*—The ordinary examination of the urine is not very helpful in differentiating these conditions. The usual findings are diminution in the total output of urine, the presence of albumen, which may be in very large amounts, a decreased total nitrogen output, a quite marked diminution in urea output, the percentage of nitrogen eliminated as ammonia may be either greater or less than normal, and the nitrogen rest is usually increased, thus showing a marked metabolic disturbance.

On microscopic examination of the urine we may find all varieties of casts, and these may be present in great numbers. As the patient's condition improves, the urine gradually clears up, though a trace of albumen may persist for some weeks, even when there is no permanent injury to the kidney.

The presence of albumen even in very large amounts, and casts, in the urine, does not necessarily mean an extreme grade of nephritis. This was well illustrated in a patient whom I saw while interne. This case was reported in full by Slemons as eclampsia without convulsions. The history briefly is as follows:

The patient had apparently been well up to about the seventh month of pregnancy, when she awoke one night with intense headache. This rapidly grew worse, and in a short time she became unconscious and was sent to the hospital, where she died about three hours after admission, having been deeply comatosed, but with no sign of convulsions. The urine showed twenty-five gms. of albumen to the litre, and was loaded with all varieties of casts, and a clinical diagnosis of uremia was made. But at autopsy, the kidneys, on gross examination, appeared absolutely normal, while a microscopic examination showed only parenchymatous degeneration. The liver, however, showed areas of peripheral necrosis, typical of eclampsia. This case impressed me strongly that even an extreme amount of albumen and numerous casts could be present in the urine, with very little demonstrable change in the kidney.

So it is evident that the quantity of albumen and the number and character of the casts in the urine will not help us in differentiating the eclamptic from the nephritic toxemia.

Usually with eclampsia there is a very marked diminution in the total output of urine and the total nitrogen output, while in nephritic toxemia these are usually not so markedly diminished. The only help afforded us by the determination of the ammonia co-efficient is in regard to prognosis during an attack. Usually, where the ammonia co-efficient is slightly greater than normal, i. e., from 7 to 10 per cent., the prognosis is more favorable, while in most of the fatal cases, it is found to be below normal, in the neighborhood of 2 or 3 per cent. Of course we must remember that there have been cases reported of eclampsia without the presence of albumen in the urine.

*Catalytic Activity of Blood.*—Recently Winternitz and Ainly have made some interesting observations of catalytic activity of the blood in these conditions. Winternitz has shown that in the blood and various tissues of the body, there is an enzyme, catalase, constantly present, which has the power of splitting hydrogen peroxide into water and molecular oxygen. He has studied the catalytic activity of the blood and various tissues in both man and animals, in conditions of health and various diseases. He finds that in health the catalytic activity is quite constant for a given individual, and the physiological variations fall within fairly narrow limits.

His observations on patients suffering from nephritis are of great interest. In the milder grades, with only slight kidney insufficiency, the catalytic activity is only slightly decreased, while in more severe grades of nephritis with marked kidney insufficiency, the catalytic activity is markedly decreased. His lowest figures are found in uremia, and as the uremia is recovered from, the catalytic activity increases.

Winternitz and Ainley have tested the catalytic power of the blood in normal pregnant and puerperal women, and have found that it does not differ from the normal non-pregnant individual.

They also made observations on ten patients suffering from toxemias in the latter half of pregnancy and found that they could be divided into two groups. *Seven* cases are included in the first group, in which the catalytic activity of the blood was found to be normal.

*Two* of these patients came to autopsy and characteristic lesions of eclampsia were found in the livers. In these two cases the catalytic activity of the tissues was likewise normal.

In the *second* group were the remaining *three* cases, and these gave a low figure for the catalytic activity of the blood, thus showing a marked kidney insufficiency.

Winternitz and Ainley reached the following conclusions:

1. The catalytic activity of the blood appears

to offer a means of differentiating the toxemias of pregnancy into two groups.

2. In certain instances the catalytic activity shows no departure from normal; these include cases of eclampsia and other toxemias without marked renal involvement.

3. In certain other cases the catalytic activity of the blood is decreased; these include patients suffering from chronic nephritis, in whom the increased work thrown upon the kidneys by the pregnancy brings about renal insufficiency, as well as cases of true eclampsia and other toxemias with marked renal involvement.

*Blood Pressure.*—When Erlanger devised his apparatus for determining the maximum and minimum blood pressure, Slemons and I made numerous observations on both normal patients and those suffering from toxemias during the latter weeks of pregnancy, and the first two weeks of the puerperium. Our observations on normal pregnant and puerperal women were published several years ago. We found that normally in the latter weeks of pregnancy, both the maximum and minimum pressures were somewhat higher than in non-pregnant women, usually, however, not more than from 15 to 30 millimeters.

But in one patient the maximum pressure reached as high as 190 millimeters mercury several times, during the last days of pregnancy. In the puerperium the pressure dropped rapidly and was usually at the normal level in two to three days after delivery. Our observations on patients suffering from toxemias have not yet been published.

Before discussing the behavior of the blood pressure of the toxemias I would say that though we observed both the maximum and minimum pressures, we found that the observation of the behavior of the maximum pressure was of much more importance than of the minimum; and for practical purposes was of just as much value as the observation of both. So I will only discuss the behavior of the maximum pressure.

During an eclamptic attack this will usually be found to be very high, in the neighborhood of 200 millimeters mercury. However, it *may* be only slightly elevated, and I recall one patient whose pressure was only 150 millimeters between convulsions, and reached its highest point of 170 millimeters just at the onset of a convulsion.

In pre-eclamptic toxemia, the blood pressure may or may not be markedly elevated, and as a general rule, patients with high blood pressure are more likely to have convulsions.

In nephritic toxemia the blood pressure is always high, though often no higher than in eclampsia.

The most interesting feature of blood pressure observations in toxemia is the behavior during convalescence.

In the convalescence of eclampsia where there is no permanent renal injury we find that the blood pressure falls rapidly and usually reaches the normal level in a week or ten days.

On the other hand, in nephritic toxemia, we find that though there is a considerable fall during convalescence, this fall takes place much more slowly, and the pressure usually remains 15-30 millimeters above the normal.

In the patients whose catalytic activity was studied by Winternitz and Ainley, blood pressure observations were also made. It was found in those cases with normal catalytic activity, that the blood pressure fell rapidly to the normal level, while with the patients showing a low catalytic activity the blood pressure fell much more slowly, and did not reach the normal level.

So it is evident, from a study of the catalytic activity of the blood and of the blood pressure, that in doubtful cases, we have a means of differentiating eclampsia from nephritic toxemia.

From what has been said I hope I have indicated that we can differentiate these two toxemias both clinically and pathologically, and I would even go so far as to insist that in patients coming to autopsy, with a clinical diagnosis of eclampsia, that unless we find the characteristic changes in the liver described by Schmol, that the clinical diagnosis be corrected and made to conform with the pathological findings.

I realize that there are a great many points which have not been mentioned at all, in this discussion, and others which have only been touched on, but I hope I have shown that these cases deserve very thorough study, not only in the hope that we may eventually solve these problems, but that even now we will be able to give a correct prognosis for pregnancies occurring after one of these toxemias.

# TREATMENT OF FRACTURES AND JOINT INJURIES.*

W. T. DODGE, M.D., F.A.C.S.
BIG RAPIDS, MICH.

No class of cases coming under the care of the surgeon is of more importance than the proper handling of fractures and joint injuries. Speaking in a general way, no other afflictions of humanity are so badly handled as are these injuries. A very large percentage of the malpractice suits brought against members of the profession are on account of unsatisfactory results following their treatment. It is therefore a subject that should receive careful consideration and thorough study at the hands of every man who may be called upon to treat injuries. It is of especial importance that surgeons working for Industrial Corporations or Insurance Companies, or Public Service Corporations, should become competent in the treatment of all classes of injuries and particularly of fractures and joint injuries, because records are kept of results and if a given surgeon shows a high percentage of delayed unions, deformities, etc. he cannot expect to long continue an employee of these corporations.

*Fractures.*—The first consideration is correct diagnosis, for proper treatment cannot be applied until the exact nature of the fracture is recognized. This can be done only by a thorough examination under an anesthetic, supplemented oftentimes by an X-ray examination. When possible, in fact, an X-ray plate should be made in all cases of fracture both before and after replacement for the protection of the surgeon if not for the advantage of the patient. When it becomes necessary to care for a patient in his home for a fractured leg, and a portable apparatus is not available, I am not of the opinion that the patient should be transported to a machine and back for the sole use of the X-ray. This movement of the patient might be prejudicial to the progress of healing in the bones and might lead to the displacement of bone fragments, that had been properly adjusted. We should be careful about stating that an X-ray examination is always necessary as by that we might wrong a colleague, but for our own protection we should secure an X-ray plate before discharging our patient.

Diagnosis having been made, reduction of the fragments is absolutely essential and once reduced immobilization should be secured by application of appropriate splints and casts. The splints used will depend upon the location of the fracture. A Colles fracture if properly reduced actually needs no splint, although it is best to apply a simple one for a few days. Bad results in Colles fractures are due to imperfect reduction and to immobilization for too long a period. Early massage and passive movements are necessary to secure perfect results.

Fractures of the femur if treated by the closed method should, except in children, always have Buck's extension applied for a time. All other fractures of the long bones may be treated for a few days by means of simple splints, the simpler the better. The surgeon may usually be able to construct a suitable splint on the ground, which is much better than an expensive ready-made one. In a few days, swelling having subsided, a cast should be applied, well padded over bony protuberances, and the patient encouraged to move around. It is important not only to restore the function of the injured extremity, but to do so with the least loss of time to the patient. More time is lost through weakness of muscles growing out of their disuse than is consumed in the healing of a simple fracture. Early passive motion should be used in neighboring joints and the patient should be encouraged in the early use of the injured limb. By these means much valuable time will be saved the patient, for as soon as the bone is united the limb should be as strong as it was before the injury. Frequent inspection, however, is absolutely necessary to insure oneself that the broken bones remain in apposition. Involvement of the joint calls for special care and makes it imperative that early passive motion shall be adopted. Otherwise the joint will become ankylosed and arthroplasty finally become imperative if normal functionating is secured. A successful arthroplasty calls for the use of much passive motion and so much time and suffering may be saved if the joint is properly treated after the original injury. In sprains of the ankle, strap and enjoin early use. Do not apply a cast or splints. Early application of heat is of value in all sprains. When acute symptoms have subsided, strapping, passive motion and use of the joint are proper procedures. This outline embraces my views of the proper treatment of simple fractures and simple sprains in which there is no doubt about the diagnosis nor concerning the perfect reposition of the broken bones. I am aware that Lane advocates the open treatment of all simple fractures and also that it has been demonstrated that the final results in large series of cases are much better by this method than by the non-

*Read before the Semi-Annual Meeting of Local Surgeons, P. M. R. R., Grand Rapids, May 24, 1916.

operative treatment. Therefore, if the patient is in a hospital and a surgeon is at hand who has had experience in the technic of operative treatment and who has mastered it, operation is advisable in all cases of fracture of the long bones. If the patient is in a private house and under the care of a surgeon, no matter how eminent, who has not thoroughly mastered the operative technic of fractures, operation had better be avoided and if it finally becomes imperative the patient should be transferred to a hospital and placed in the hands of a man proficient in this field. Many cases require operative treatment if perfect functional and anatomical results are secured. The selection of these cases rests upon the surgeon's ability to interpret the X-ray. In a general way the indications for adoption of the operative method are as follows:

1. Certain oblique or spiral fractures of the femur.
2. Fractures with interposed soft parts.
3. Certain oblique fractures of both bones of the leg.
4. Certain fractures near the knee and ankle joints.
5. Fractures of the clavicle.
6. Fractures of the inferior maxilla near the angle or in jaws from which the teeth have been extracted.
7. Comminuted fractures of the long bones.

Lane mentions as advantages of operative treatment:

"1. Immediate relief of pain produced by movement of fragments.
2. Relief from tension and discomfort of extensive extravasation of blood.
3. Early restoration of function.
4. Restoration of original mechanics."

As absolute contra indications he mentions "An indifferent surgeon who cannot keep his fingers out of the wound and who has not a thorough grasp of the anatomy of the part, untrained assistants, unsuitable environment and incomplete equipment." He places special emphasis upon absolute immobilization following operation and further does not recommend plating in compound fractures. In fact Lane's work owes its success to an almost perfect technic. If this cannot be applied in a given case it is better to chance a crooked arm or a shortened leg than to court septic infection from bad surgical interference.

One writer says "Operative treatment of fractures should be as solemn a procedure as a laparotomy, where failure means a blot on the escutcheon of the hospital and operator." When operative treatment is decided upon the choice at present lies between Lane's plates and Albee's autogenous bone inlay or graft. One writer recently has reported a few cases treated with heterogenous intra-medullary bone pegs with satisfactory results. If this method should prove satisfactory it may become the operation of choice for it is a serious objection to the Albee method that to carry it out a wound must be inflicted upon another bone in an already afflicted individual. In ununited fracture the autogenous bone graft is undoubtedly superior to the metal plate. The popular belief that bad sprains are more serious than fractures is only true when a simple sprain has been immobilized too long or when an unrecognized fracture exists in association. Nowhere has the X-ray been of more value than in disclosing the existence of fractures in and about joints. Much uncertainty is attached to the use of the word sprain. It has been applied to all kinds of joint injuries in which the skin is unbroken. It is obviously wise to restrict its use to injuries in which there exists no more serious lesion than temporary interference with the function—a twist without evidence of laceration of ligaments or fractures of bones. This limitation has been in mind in the suggestions I have made concerning treatment.

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## THE TREATMENT OF BURNS.

C. N. SOWERS, M.D.
BENTON HARBOR, MICH.

In looking over the various text books on surgery, the physician is disappointed at the very meagre space devoted to burns and their treatment. Not much work has been done on the pathology, cause of shock or toxemia. As burns are among the commonest of lesions, and the results, so far as the restoration of function is concerned, are sometimes so disastrous, it would seem that more attention should be paid to this important branch of surgery.

Authorities claim that if one-half the cutaneous surface is burned, no matter how slightly, the case will probably prove fatal. Even if one-third or one-fourth of the surface be burned the prognosis should be very guarded.

The somewhat arbitrary division of burns, by Hebra, of the first, second and third degree is well understood by all. Of course many burns have all three of these divisions and it is often difficult to sharply define these degrees in a given case.

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*Read before the Semi-Annual Meeting of Local Surgeons, P. M. R. R., Grand Rapids, May 24, 1916.

I believe burns are poorly treated as a rule, and I venture to say that no physician is ever fully satisfied with his work. The numerous drugs advocated in the treatment of burns, would seem to corroborate this statement.

Having had under treatment, for sometime, an extensive burn of the left leg from ankle to and including most of the left hip, a portion of the right hip, also the left hand, I will summarize my experience with this case and some of the methods now in use by good men in the profession.

The first indication in the treatment of burns is to relieve the pain and combat shock. One writer says, after removing the clothing and dressing the burns he gives a hypodermic of morphine. Why this delay? As pain is one of the causes of shock, and to prevent shock is of first importance, it is my custom to give immediately, morphine, atropine and strychnine hypodermatically. In removing the clothing it is advisable, when possible, to place patient in a bath to which a handful of borate or bicarbonate of sodium has been added. One should cleanse the surface as thoroughly as possible. If it is necessary to give an anesthetic for this purpose I would not hesitate to do so, if patient's condition permits. Every burn is sterile, and we must endeavor to keep it so by being as careful as we would in any surgical wound.

As before stated we must be on the alert for shock. Whatever be its cause, vaso-motor or cardiac, it must be treated as surgical shock. Raise the blood pressure by every means available, morphine, atropine, strychnine, camphor, adrenalin ten drop doses of a 1/1000 solution hypodermatically. These do not need to be often repeated or we may over-stimulate our patient. Normal salt by hypodermoclysis as soon as indicated. We must be on the lookout for late shock. By this I mean after eighteen to twenty-four hours. I nearly lost my case, referred to in this paper, after eighteen hours. He was apparently doing well when suddenly he became pulseless, cyanotic, and all the symptoms of impending dissolution. It took some hard work for six hours to tide the patient over.

One important thing to remember is to watch the kidneys closely. Often there is partial or complete suppression of urine. Make sure it is not retention. I usually urge my patient to drink plenty of pure water and sometimes add a little citrate of potassium.

The treatment of the burn, after as thorough cleansing as possible, depends on the extent of the burn, whether it be of the first, second or third degree. If it is merely of the first degree the application of a solution of picric acid, one-half to one grain to the ounce of water, applied for a few times and followed by cold-cream or carbolized vaseline, and your patient is well in a short time. Better than picric acid, in my somewhat limited experience, is a 2 to 5 per cent. solution of aluminum acetate. Keep the surface constantly moist with it, after covering with sterile gauze. This solution, as recommended by Ravogli in the *Journal of the American Medical Association* of July 24, 1915 seems to meet the indications. It relieves the pain, is antiseptic, and is equally efficacious in burns of any degree. I have tried it in a few cases and believe it is as good as anything I have ever used as a routine measure.

In burns of the second and third degree; remove the dead skin with sharp scissors, as soon as easily detached, but not before. Forcibly detaching may open up avenues for absorption and lead to general septic infection. When the skin and underlying tissues are mummified and cannot be detached a number of openings should be made in them to drain off the accumulated pus.

In bad suppurating surfaces bi-chloride dressings of 1/4000 to 1/2000 solutions usually cleans them up in a few days. The danger of mercury poisoning is practically nil.

So much depends on the judgment of the physician in dealing with burns during the healing process. At some stages possibly a dusting powder such as steaerate of zinc, bismuth and boric acid may act well. Or some bland ointment may serve us best. Again, excessive granulation may have to be subdued with a 3 per cent. solution of silver nitrate.

Epidermization may be hastened in the little islands that appear, or at the margins by the application of scarlet red. Balsam of Peru 25 to 50 per cent. in castor oil often serves this purpose well when the granulations are pale. One other method known as the Sneve method, namely exposure of the burnt area to the air for a short time, say one to three hours if the patient can stand it. In treating the bad case, to which I have previously referred I exposed the limb to the air for one hour at first, then longer, and later to the direct rays of the sun. The actinic rays seem to exert a very good effect, so much so that the patient noticed it and was anxious each day to stand the discomfort necessary for treatment. The sloughing watery secretions are soon dried up by the open air treatment. It is best to cover the surface, after exposure, with gauze or dusting powder. Some use ointment of boric acid in petrolatum.

Better than these is gauze moistened and kept so with 3 per cent. aluminum subacetate. I have also found that strips of gutta percha laid criss-cross over the surface prevents the gauze from sticking when removed. I do not use carron oil or other oily substances any more. They retain de-composing materials and favor absorption.

One should ever be on the alert for kidney complications. Analyze the urine frequently, and about once a week give mild chloride followed by saline cathartic.

In burned areas of large size without a tendency to the formation of epidermis a few skin grafts may be necessary to start epidermization.

612 Territorial Road.

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## THE URINARY DIAGNOSIS OF PREGNANCY.

H. A. SHARPE, M.D.
L'ANSE, MICH.

It is not the desire of the writer to convey the idea of presenting something entirely new in the field of the Urinary Diagnosis of Pregnancy but rather to put within reach of the average physician a method which is accurate and at the same time easy in execution and which is devoid of those scientific principles which carries Abderhalden's serum reaction beyond those that have not the facilities of a well equipped laboratory and hospital.

In general practice many patients hesitate to submit to lumbar puncture or aspiration of blood from the median basilic vein. Although it is a minor operation it appears to the patients as a mountain and many times it is more serious to them than their approaching confinement. It has been for that reason I have tried to perfect a method to use urine rather than serum. With our modern and careful diagnosis of gynecological conditions we are frequently called upon to determine the presence or absence of a pregnancy.

It has been proven conclusively that blood serum contains several proteolytic enzymes, one of which function is to split up, digest, or proteolyze foreign protein into amino and other organic acids which circulate in the blood stream.

This is true not only in pregnancy but also in connection with the various malignant growths, carcinoma, sarcoma, angic sclerotic changes, and also transplants of thyroid, suprarenal, pancreas and occasionally of the spleen.

Abderhalden has shown through experimental study that the phenomenon of assimilation of foreign material introduced directly into the blood stream revealed a number of facts pointing to the tendency of the cells to elaborate a specific mechanism by means of which the cells are able to protect themselves in a specific manner against the injurious effects of disturbances of their normal nutrition. This protective mechanism consists in the formation in the cells of new and specific ferments, which directly attack the foreign material as in Ehrlick's theory regarding anti-bodies. These specific ferments according to Abderhalden, at a certain stage in the process may appear detached from the cells and be found circulating free in the blood.

The presence in the blood of an individual of these specific ferments or enzymes, not existing there normally, shows that there is present in that individual, a proteolytic activity which, when brought in contact with a corresponding proteid under certain conditions, is capable of splitting that proteid into amino and other organic acids.

Abderhalden's original technic was using blood serum in parchment dialysing thimbles with "Ninhydrin" negative placental sub-strate. To carry out this correctly is a very delicate operation.

In "Ninhydrin" we have a very convenient and at the same time reliable reagent for determining the presence of amino compounds, resulting from proteolytic digestion.

Working on the basis that these proteolytic enzymes are present in blood serum and spinal fluid there is no reason why these enzymes should not be present in the urine, although possibly in a lesser degree.

Kiutsi, who has done a great deal of work on this line, and using the Biuret reaction, states that he has "repeated this method several hundred times and never missed." This statement has been greatly exaggerated for none of our American observers have been uniformly successful. In my experience I have found the Biuret unreliable, that it has been positive with known non-pregnant urines, and many times will be positive to Biuret and negative to Ninhydrin.

The most essential feature is the proper preparation of the placental sub-strate which I will describe in detail as follows:

### PLACENTA SUB-STRATE, DRIED.

1. A placenta from a normal healthy woman, free from contagious disease is washed to remove clots and excess of blood.

2. With sharp curved scissors, the spongy placental tissue is absolutely freed from membranes and fibrous tissue, is cut into small pieces the size of a pea.

3. This portion is then washed, alternately with water and normal saline, until the tissue is perfectly white and the wash water is entirely free from hemaglobin.

4. It is then washed in running water until free from chlorides when tested with $AgNO_3$ T. S.

5. A small piece of the substrate is then boiled in 10 cubic centimeters of water for five minutes and tested with Biuret. Washing must be continued until the Biuret is negative.

6. A small portion subsequently tested in a similar manner until negative with the Ninhydrin reaction.

7. The placental tissue is carefully drained and placed on a glass plate and dried at around 80° C. or over a steam radiator, for twelve hours at least or until it is perfectly dry. This may be determined by testing a small portion in a dry sterile mortar.

8. When perfectly dry it is finely powdered and placed in a clean, dry glass stoppered bottle.

A freshly passed specimen of urine from a pregnant woman is tested for the Biuret reaction and if positive 30 cubic centimeters of the urine are shaken with 2 gm. of Kaolin for at least ten minutes and filtered. This should be repeated until Biuret negative.

A urine that is strongly acid should be neutralized with 2 per cent. NaCo.

Several authorities use toluene to inhibit bacterial action but I have discarded it as unnecessary and only adds one more complication.

In filtering urine to be tested always use Munktells Swedish filter paper as ordinary filter paper contains organic impurities.

Always carry controls.

### METHOD OF TESTING URINE.

Test Tube No. 1. Take 10 cubic centimeters of a known non-pregnant urine, which conveniently may be a male urine. Add gm. .2 of placental substrate.

Test Tube No. 2. Ten cubic centimeters of the urine to be tested are prepared as previously stated. .2 gm. of placenta substrate are added.

Test Tube No. 3. Ten cubic centimeters of the urine to be tested is used as a control and no substrate are added.

These are then incubated for twelve hours. It is not necessary to use an expensive incubator, this process may be completed over a steam radiator or over an electric pad or in close proximity to an electric bulb. After incubation 5 cubic centimeters of the super-natent liquid is removed from each tube and placed in three corresponding tubes and labeled thus: 1-1, 2-2, 3-3.

To each of these test tubes are added .2 cubic centimeters of 1 per cent Ninhydrin test solution and each test tube is boiled *exactly one minute* from the time the first bubble appears on the sides of the tube. Care must be taken that the same degree of evaporation and concentration takes place in each tube. A purple, lilac, amethyst or purplish rose color indicates a positive reaction. Occasionally it takes from one to eight hours for the color to fully develop.

### INTERPRETATION OF RESULTS.

Test Tube 1-1 will be negative with correct technic and proper substrate.

Test Tube 2-2 will show with pregnant urine a purple, lilac, amethyst or purplish rose color in from a few minutes to several hours depending upon the intensity of the reaction.

Test Tube 3-3, in only rare cases where albumin is in excess, in grave malignant disease or in error in technic will this tube show a positive reaction.

It is essential to carry on controls in this manner to prevent error in technic, use of proper substrate and to determine the delicate color reactions.

It has been my experience that there is little difficulty in determining a pregnancy after the fourth month. During the second month proteolytic action is so weak that in only one case was I able to obtain a positive reaction. I have obtained several positive reactions in the third month.

### URINE FROM A CASE OF ECLAMPSIA.

While carrying on this experimental work I had the unfortunate experience of examining the urine from an eclamptic patient. While doing the routine urine examinations during pregnancy, I noted one urine that gave a most decided and intense color reaction. Using this same urine which contained very little albumin, I made the following dilutions, 1:1, 1:2, 1:5, 1:10 and 1:20. The dilution 1:10 gave as positive a reaction as many of my cases during an ordinary pregnancy. Dilution 1:20 gave a faint and questionable reaction. This patient died seven days later.

My experience is limited to one case only so, of course, can draw no conclusions, only a suggestion.

May we not have the experience of authorities

who have unlimited clinical material and the advantages of well equipped laboratories?

Is it not possible that work along this line may throw some light on the old theory of placental proteolytic action in the etiology of eclampsia?

CONCLUSIONS.

1. That in the "Ninhydrin" reaction in a pregnant urine properly prepared, we have a very reliable test for pregnancy.

2. A marked positive reaction indicates, beyond a reasonable doubt, pregnancy. I have had a faintly positive reaction persist in a case of pregnancy for four months subsequent to confinement in a case of carcinoma uteri. I have had one positive reaction in a case of primary carcinoma of the bladder.

2. That a negative reaction in a doubtful case is of more value in ruling out pregnancy than a positive reaction would be in confirming it.

4. That the anti-tryptic action present in certain urines may, in rare instances, be due to other pathologic conditions.

5. The results of my experiments have been uniformly successful; cases tested during the second month and being negative subsequently were shown to be positive.

6. Placental sub-strate and Ninhydrin may be prepared, ready for use, by any of the large pharmaceutical houses.

7. What would be the possible value of a quantative reaction—Ninhydrin—in a case of threatened eclampsia? Is it not possible, with a quantative test, we have a method that may be of early diagnostic value in eclampsia?

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## OCULAR EVIDENCES OF VICARIOUS MENSTRUATION.

J. E. GLEASON, M.D.
DETROIT, MICH.

Under the heading of disturbances of menstruation, the *Index Medicus* since its conception in 1879 records approximately fifty-seven references to articles published in the literature of the past thirty-six years concerning so-called vicarious menstruation. A review of the partial list of these references accessable shows the location of the vicarious bleeding to be most frequently the nose, with the lungs, stomach, breasts, rectum, gums, throat, larynx, lips, skin, kidneys, bladder and fingers following in approximately the order named. Many of these articles deal with cases which are incomplete in essential details, or are otherwise open to suspicion as possible errors in diagnosis. Many others in which the diagnosis is not so suspicious, fail to definitely comply with the essential requisites for classification as typical vicarious hemorrhages, namely, that normal menstruation must be absent, that the vicaris manifestation must have a corresponding regular periodicity, and that this manifestation must be in or from an otherwise normal organ. Hemorrhages arising from diseased tissues, which in themselves might present evidences of bleeding, really should be excluded unless normal menstruation is absent, and marked periodicity is observed over an extended period. In view of the rarity of well established cases of this character, the following case is presented.

Mrs. X aged 36 was seen May 17, 1915 on account of a very marked injection of the bulbar conjunctiva of the right eye which had suddenly appeared the previous day. As there was no purulent secretion and no pain in the eye, a simple collyrium was prescribed, and in about two days the redness entirely disappeared. She was then refracted and found to have one-half diopter of simple myopic astigmatism against the rule, for which she received and has since been wearing correcting lenses. June 7 she again returned with the same injection present, and more careful questioning revealed the following history. She had always been well as a child, without any serious illness.

Her menstruation appeared at thirteen, was always regular and without pain. She was married at 17, and has one healthy child, 16 years old. Seven years ago on account of pain in the right side she had a right salpingectomy with opening of several cysts in the corresponding ovary, which, however, was not removed. About five years ago, the left tube and ovary were removed *in toto* for a condition of hydrosalphinx. Following this operation, menstruation entirely ceased, no local manifestation of it has since appeared, and the patient has experienced many of the classical symptoms of an artificial menopause. About three years ago she developed symptoms of a gastric ulcer, with pain in the epigastrium which was relieved by eating, and with a point of marked tenderness over the pyloric end of the stomach. At this time she had several attacks of hematomesis. Just how many or with what regularity she is not sure. These symptoms disappeared on treatment with bismuth and iron. The conjestive disturbance on the part of the eyes has been more or less constant for the past nine or ten months, and various local remedies have been tried without influencing the return of the condition. Preceding the conjunctival injection there is severe pain in the head with hot flashes and general symptoms of the onset of the menstrual period. The conjection of the conjunctiva has never appeared in both eyes at the same time, although each eye has shown the condition separately. Occasionally there are short periods of amaurosis during the attacks, lasting several minutes. All symptoms usually disappear after two or three days to reoccur again in the course of several weeks. The patient was seen with similar

symptoms July 3 and August 9. In July the temporary blindness was especially marked, lasting about twenty minutes. Ophthalmoscopic examination made within one-half hour after recovery of sight failed to show any fundus changes. Examination of the blood and urine has failed to show any abnormalities.

Cases of ocular disturbances associated with the menstrual period which I have been able to find in the literature are as follows:

(1) McKay, *American Journal of Medical Sciences,* 1882, under the title of Eye Diseases from Suppression of Menses, reports twelve cases in unmarried young women showing inflammatory diseases of the interior of the eye, generally the optic nerve or retina or both, of both eyes. According to the author relapses occurred so often at the time of the menstrual disturbances that the connection between them seemed most conclusive. When normal menstruation was re-established and maintained, the ocular symptoms were much relieved or disappeared entirely. In one case only was there subconjunctival hemorrhage, which occurred only once.

It seems only fair to note that all these cases were amnetropic, and apparently suffering from asthenopia. Correction of the refractive errors and general treatment together produced results. From the case histories, one is somewhat in doubt regarding the proper diagnosis of neuro-retinitis in a majority of the cases.

(2) Wiltshire, *Lancet,* 1885, cites a case of Rachborski, of monthly hemorrhage into the anterior chamber, and a similar case of Pagets seen at Moorfields the small effusion of blood being absorbed during the intervals. No further details are given.

(3) Barnes, *British Gynecological Journal,* 1887, reports among others, a case of profuse ecchymosis of both eyes at the menstrual period. Some blood escaped from the surface, and some was effused under the conjunctiva to be gradually absorbed, passing through all the stages of ecchymosis of the eye from direct violence. Whether normal menstruation was absent is not stated.

(4) Guèpin, *Annales d'Oculistique,* Vol. XLVI, (cit Barnes )reports the case of a girl aged 18 whose menstruation began at 15. The periods returned every thirty-two to thirty-three days with tolerable regularity, lasting sometimes but one day, at others five or six days. She always found that on the cessation of the menstrual flow, there had been a supplemental epistaxis, this being more or less abundant in proportion to the quantity of menstrual flow lost. On one occasion the epistaxis did not occur, and then a sudden effusion of blood into the anterior chamber took place. The menstrual discharge of this occasion only lasted two hours. The lower part of the anterior chamber was filled with blood which extended over the free margin of the iris.

(5) Davis, *Ophthalmic Record,* 1897, reports a case of vicarious hemorrhage into the eye at the menstrual period. A married woman aged 22, the first day after the establishment of a scanty menstruation, suddenly lost vision down to 4/200 in the left eye. Ophthalmoscopic examination showed a hazy fundus with a triangular white spot 4 millimeters temporally and below the disc. In the center of this area was a small red spot from which extended forward and upward into the vitreous a cone shaped hemorrhage. In three months vision was increased to 20/100. The author thinks the hemorrhage was due to increased pressure in all vessels from almost complete suppression of the menses. The added factor of a chronic constipation is also pertinent. The hemorrhage in this case occurred only once.

(6) Liebreich, (cit. Barnes) has figured in his ophthalmological atlas an example of retinal hemorrhage after suppression of menses.

(7) Mueler, *Zehenders Monatsblatter fur Augenheilkunde,* 1893 (cit. Davis) reports a case of a woman who had menstruated regularly since 15 years of age, and who from her 24th year had a recurrent conjunctivitis with marked chemosis at each menstrual period, until she married and became pregnant. During three pregnancies, the conjunctivitis ceased, to return between times. The author called this a case of chemosis menstrualis.

(8) Friedenwald, *Journal of Eye, Ear and Throat Diseases,* 1896, (Cit. Davis) under the title of Affections of the Eye and Normal Menstruation reports two cases of punctate keratitis, one case of conjunctivitis, one case of iritis and two cases of hemorrhage into the vitreous which recurred regularly at the menstrual period for a number of months. The cases of iritis and vitreous hemorrhages however occurred in previously diseased eyes. His opinion was that menstruation acted only as an exciting cause, through increased general vascular pressure.

From a rather careful review of the literature, one is impressed with the fact that, in general, vicarious menstruation is a rare condition, and especially is it unusual to see evidences of this condition manifested on the part of the eye. The case here presented seems to comply accurately with the essential requisites for such a

diagnosis, in that there exists complete suppression of the menses over an extended period, a corresponding periodicity in the observance of the ocular symptoms, and the local manifestation is in an otherwise normal eye. Whether the hematomesis referred to showed any corresponding regularity, the patient is unable to remember. The treatment has been the use of iron, and ovarian extract, five grains three times daily. The result of the first month's exhibition of the extract was that for the first time in her history the patient had both eyes injected at the same time, the amaurosis was especially prominent, and the vasomotor symptoms were especially distressing. The last two months the injection has appeared as usual, but other symptoms, especially the headache, seem to have been very much relieved.

## DERMOID CYST OF THE SPERMATIC CORD.

R. E. Fox, M.D.

SANTO TOMAS HOSPITAL—ANCON, C. Z.

In looking up the literature with regard to dermoid cysts of the cord, I was surprised by the rarity of this condition. Guiteras mentions such a case. Others, however, in treating the cystic diseases of the cord have failed to describe any such cases.

Recently a large strapping young negro came into Santo Tomas Hospital with the following history:

About one year ago he was confined to his bed with what the doctors told him was acute rheumatism, in which he suffered from joint pains, fever and excessive sweating; this lasted about seven days. At this time he noticed a small inguinal swelling which was neither painful nor tender. It remained this way until two months ago when it began to gradually enlarge; at no time did he suffer from pain, fever or any other subjective or constitutional symptoms. The only discomfort he experienced was a heaviness in the groin. He came into the hospital to be operated on for "rupture" as he called it.

*Physical Examination.*—Strong, well nourished negro; 27 years old. Inspection showed large inguinal swelling about the size of a pear, somewhat fusiform in shape with an inclination to roll over Pouparts ligament, extending from the area of internal to that of the external rings. There was no impulse on coughing. Both testicles were in the scrotum. Palpation revealed a slightly fluctuating mass that could not be reduced and extending into and a little below the external ring, but distinctly separate from the testicle. No Wassermann was taken. No puncture was done to ascertain the contents. In the diagnosis several conditions were thought of: I. Abscess of the inguinal glands. 2. Tubercular abscess from a possible spinal caries. 3. Section of sigmoid turned up in the inguinal region. 4. Fatty tumor. 5. Hydrocele of the cord, the latter of which was our tentative diagnosis because of his negative history.

*Operation.*—The patient was prepared for operation and a spinal anesthesia of 5 mgs. of stovaine was given. A long incision was made over the tumor which was found to be closely associated with the spermatic cord and bound down to surrounding structures by adhesions. After partial dissection the sac was opened and about 4 to 4½ oz. of a white flaky material with a peculiar penetrating and lingering odor escaped; at the same time a lock of golden hair passed out with the fluid. I knew then what we were dealing with, a dermoid cyst of the cord. The sac was removed and transplantation of the cord was done and the wound closed up with drainage.

The sac was taken to the hospital pathologist, Dr. A. M. Alden, who found hairs growing out of the inner walls, and confirmed our post operative diagnosis.

## DO YOU KNOW THAT

Walking is the best exercise—and the cheapest?

The United States Public Health Service administers typhoid vaccine gratis to Federal employes?

A little cough is frequently the warning signal of tuberculosis?

Bad teeth and bad tonsils may be the cause of rheumatism.

Unpasteurized milk frequently spreads disease?

The air-tight dwelling leads but to the grave?

Moderation in all things prolong life?

The careless spitter is a public danger?

*Diarsenol.*—Diarsenol, Synthetic Drug Company, Toronto, Canada, is said to be chemically identical with salvarsan. It has not been examined in the A.M.A. Chemical Laboratory nor do any reports of trials appear to have been published which demonstrate its value or safety. As salvarsan is covered by United States patent the American agents for salvarsan will probably object to the sale in the United States of a substitute (*Jour. A.M.A.*, Feb. 19, 1916, p. 590).

*Hexamethylenamin and Uric Acid.*—If further evidence were necessary to show the futility of administering formaldehyd derivatives like hexamethylenamin as uric acid solvents, it could be found in the observations recorded by Haskins under the auspices of the Committee on Therapeutic Research of the Council on Pharmacy and Chemistry. While the administration of excessive doses may produce slight solvent action, Haskins points out that the required dose of hexamethylenamin is too large and an equal or better effect can be produced more readily by administration of alkaline diuretics or sodium bicarbonate in reasonable quantities (*Jour. A.M.A.*, March 25, 1916, p. 962).

# Fifty-first Annual Meeting
## Houghton, August 15-16-17, 1916

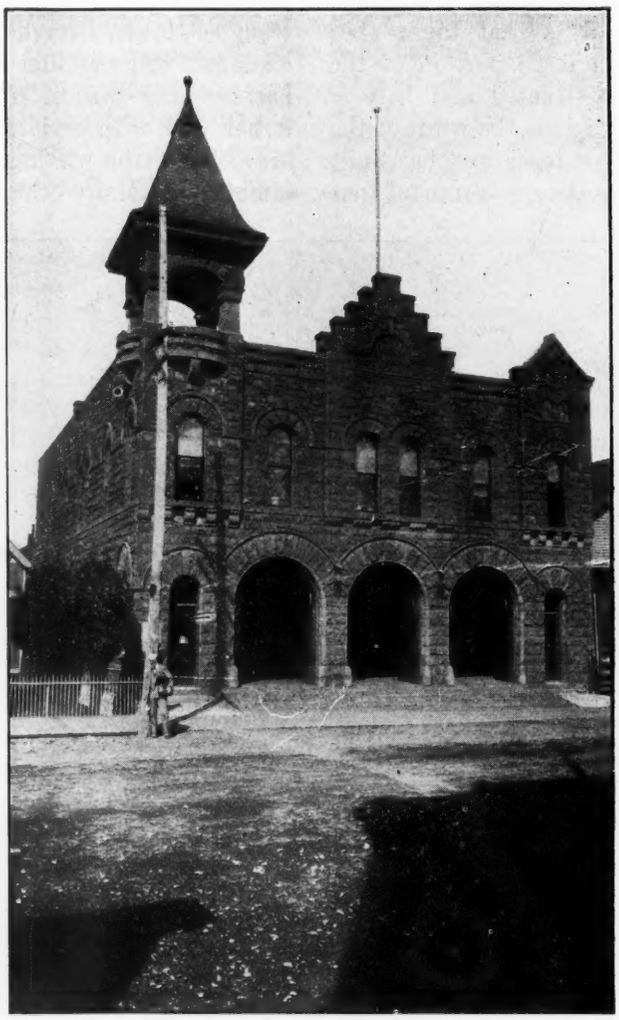
*"Si quaeris peninsulam amoenam;"* Michigan is a state of peninsulas, and not the least of them is the one which runs out into Lake Superior for a distance of fifty miles and includes the counties of Baraga, Ontonagon, Houghton, and Keweenaw. Here it is that the copper mines, which represent a large portion of the wealth of the state, are situated and here it is that the savage Indian roams the wilds of the streets and has pitched his tepee and has built up an institution of progressive government that makes him feel "heap" proud, and it is here also, that he hopes to welcome and entertain the big "Medicine Men" of the tribes who live to the south and with them make heap big Medicine and hold great Pow-wow! This great event will take place about two moons hence, in the month when the summer is in its prime.

Great preparations are being made for the event and a big smoke will be held, and all may bring their peace pipes with them, but their tomahawks must be left at home, for we, the great red men of the north, will stand for anything but knocking! Big Chief Medicine Man Hornbogen will come from the beautiful town beside the shore of the great GitcheGumee and will pitch his tent on the third floor of the Douglas House, Houghton. Heap Bigger Chief Vaughan will shoulder his tepee from where it has for long suns stood, by the side of Ann's Arbor and with strides equal to those of the brave Hiawatha will reach Houghton about the same time. Many other notable Medicine Men from Chicago and other centers will be present and after the Pow-wow this country will be better for their having come together. The people coming here will find many things of interest and which they can find in none other than a mining country. The mines are the largest, probably, in the world, and the system of mining is the most modern. Probably no other mining camp in existence furnishes to its citizens so much that is metropolitan. Our school system is the best and the school build-

TAMARACK HOSPITAL

ings are the equal of any in the state; the same may be said of the churches and in fact all public buildings. The country itself is rugged but that only adds to its grandeur and makes it the more interesting. The climate at the time set for the meeting is usually ideal, the temperature seldom going above 80 degrees and the trip should be a relief to those coming from centrally located and we can assure the members of the State Society who visit us every comfort and a really good time. A few cuts of the hospitals and some of the public buildings are to be found on the following pages of the *Journal.*

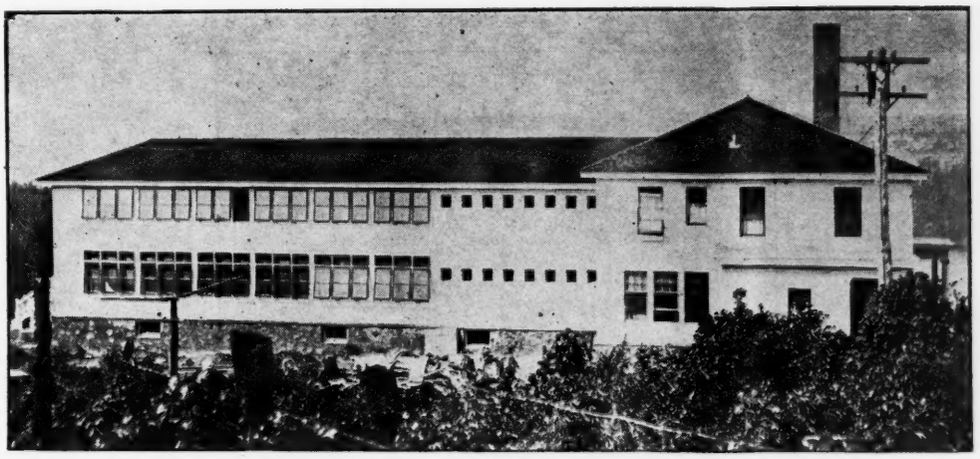
The program of entertainment will consist of a smoker on the evening of Aug. 15 at the



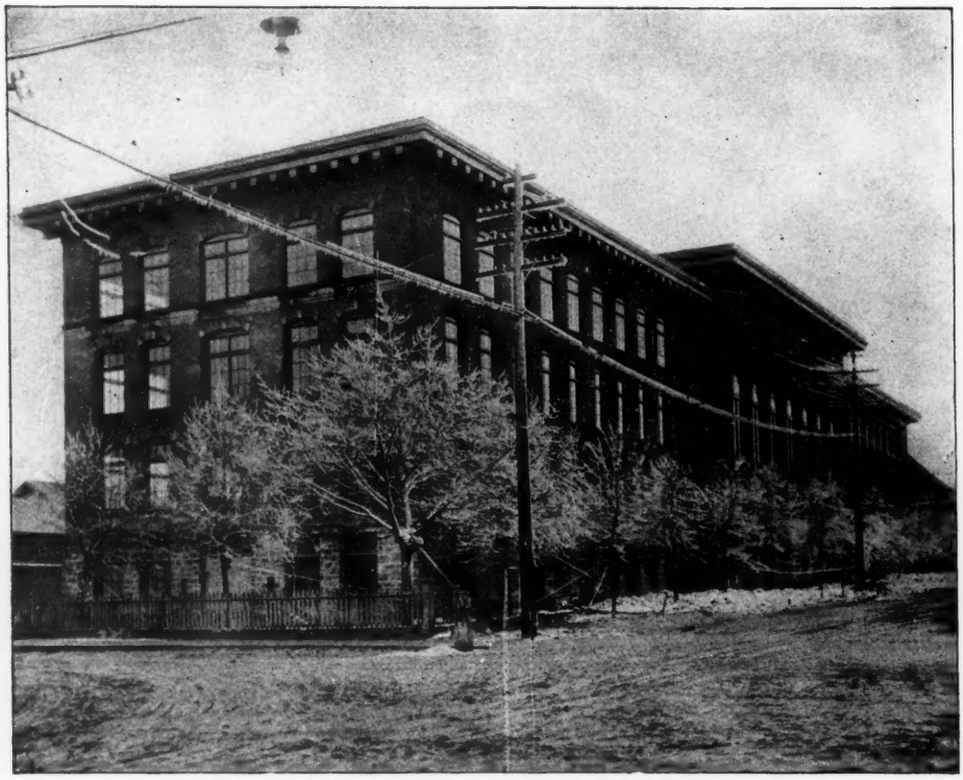
RED JACKET FIRE HALL

farther south. The entertainment will be such that all of the country may be seen by the visitors, trips being made to the points of interest by automobile and boat. The massive machinery and the mining, milling, and smelting system of preparing copper for market will be an education to those who have not already seen it. The hotels furnish as good accommodations as can be secured in any large town Amphidrome at which refreshments will be served. On the afternoon of Aug. 16 auto rides and entertainment for the ladies at the Onigaming Club. On the evening of Aug. 16 the President's reception and dance will be held at the Masonic Hall. On Aug. 17 automobiles will be provided to take the members around the county to visit the various industrial institutions.

ST. JOSEPH HOSPITAL, HANCOCK



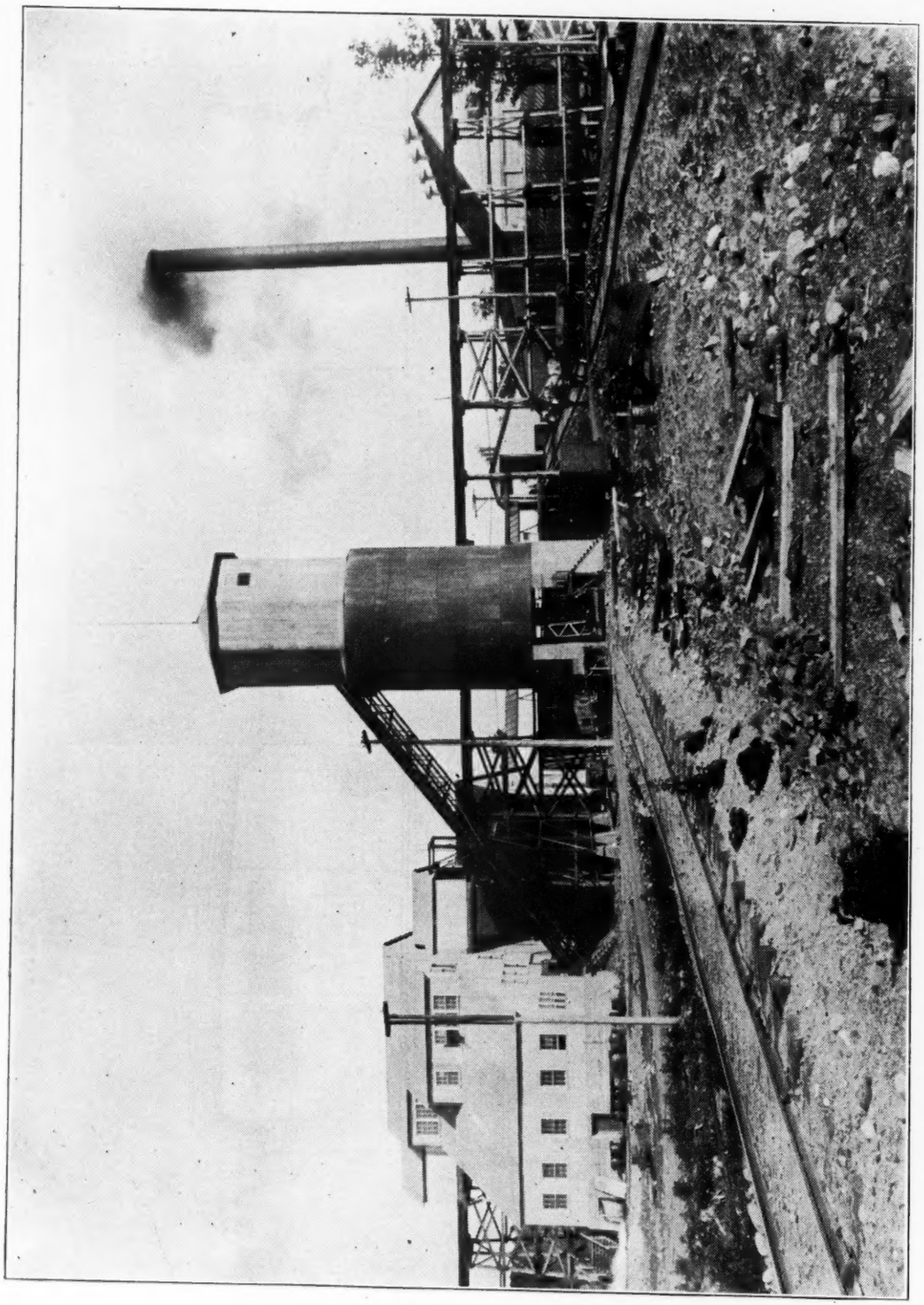
HOUGHTON TUBERCULOSIS SANITARIUM



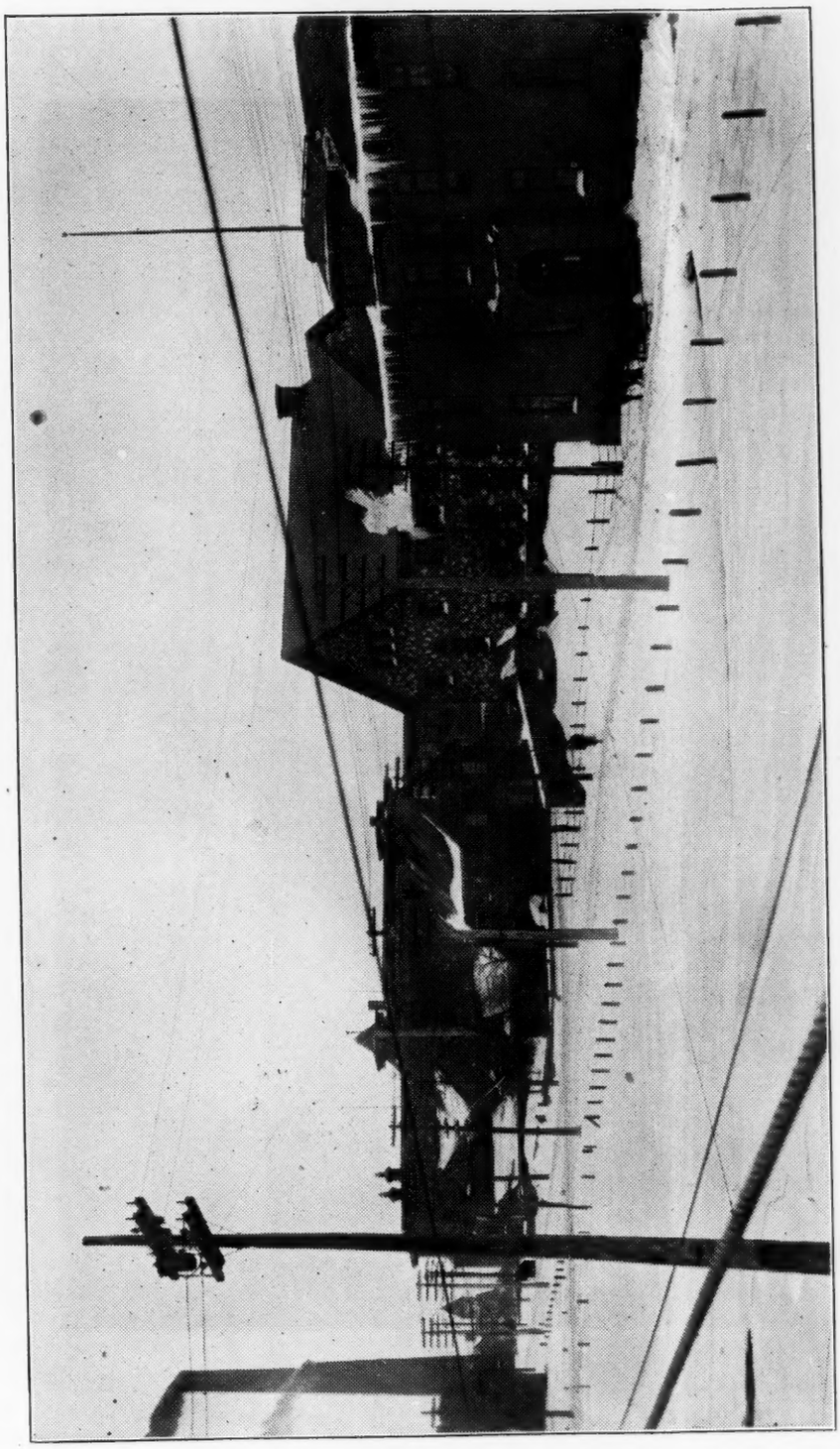
HIGH SCHOOL, CALUMET

COPPER RANGE HOSPITAL, TRI MOUNTAIN


BUSINESS SECTION OF HOUGHTON



VIEW OF AHMEEK MINE



VIEW OF MINE STREET SHOWING PUBLIC LIBRARY AND ARMORY

HUBER HALL—MICHIGAN MINE COLLEGE

# Official Program

## Fifty-first Annual Meeting Michigan State Medical Society

### at Houghton, Houghton County

### August 15-16-17, 1916

#### OFFICIAL CALL

The Fifty-first Annual Meeting of the Michigan State Medical Society will be held in Houghton, Houghton County, Michigan on Tuesday, Wednesday and Thursday, August 15, 16 and 17, 1916.

The HOUSE OF DELEGATES will convene on TUESDAY Evening, August 15 at 8:00 p. m.; WEDNESDAY at 8:30 a. m.; THURSDAY at 8:00 a. m.

The COUNCIL will convene in regular session on TUESDAY Evening at 6:00 p. m.

The GENERAL SESSION will convene on WEDNESDAY Morning at 10:00 a. m. and on THURSDAY Morning at 11:30 a. m.

The COUNTY SECRETARIES ASSOCIATION will meet on TUESDAY Evening at 6:00 p. m.

The SCIENTIFIC SECTIONS will hold their regular sessions at such time and place as is designated hereafter in the program.

**A. W. Hornbogen,** President.
**Frederick C. Warnshuis,** Secretary.

#### PLACE OF MEETINGS

The HOUSE OF DELEGATES will hold their sessions in the Amphidrome.

The GENERAL SESSIONS will meet in the Amphidrome.

The COUNCIL will meet in the Parlor of the Douglas House.

The SCIENTIFIC SECTIONS will meet in the auditoriums designated in the Section Program.

#### THE COUNCIL

**Chairman—William T. Dodge, Big Rapids.**
**Vice-Chairman—A. L. Seeley, Mayville.**
**Secretary—F. C. Warnshuis, Grand Rapids.**

#### MEETINGS

Tuesday Evening, August 15 at 6:00 p. m.
Wednesday, August 16 at 12 noon.
Thursday, August 17 at 12 noon.

#### HOUSE OF DELEGATES

**Meeting Place: Amphidrome**

**President—A. W. Hornbogen, Marquette.**
**Secretary—F. C. Warnshuis, Grand Rapids.**

#### FIRST SESSION

**Tuesday Evening, August 15th, 8:00 P. M. Sharp.**

ORDER OF BUSINESS:

1. Call to Order by the President.
2. Roll call.
3. Report of the Committee on Credentials.
4. Reading of the Minutes of the last Annual Meeting.
5. Annual Report of the Council, W. T. Dodge, Chairman, Big Rapids.
6. Report of Delegates to the American Medical Association, L. J. Hirschman, Detroit.
7. Report of the Committe on Medical Education, Burt R. Shurly, Chairman, Detroit.
8. Report of the Committee on Legislation and Public Policy, A. M. Hume, Chairman, Owosso.
9. Report of the Committee on Venereal Prophylaxis, Udo J. Wile, Chairman, Ann Arbor.
10. Report of the Committee on Tuberculosis, V. C. Vaughan, Jr., Chairman, Detroit.
11. Report of the Committee on Public Health Education, Guy L. Kiefer, Chairman, Detroit.
12. Report of the Committee on Civic and Industrial Relation, Reuben Peterson, Chairman, Ann Arbor.
13. Election of Committee on Nominations.
    The duty of this committee is to nominate:
    (a) 1st, 2d, 3rd and 4th Vice-Presidents.
    (b) Two delegates to American Medical Association to succeed L. J. Hirschman and H. E. Randall.
    (c) To select place for holding the 1917 Annual Meeting.
14. Appointment of Business Committee and other Committees by the President.

#### SECOND SESSION

**Wednesday, August 16th, 8:30 A. M.**

1. Roll Call.
2. Miscellaneous Business.
    (a) Recommendations to the Council.
    (b) Proposals of ammendments to the Constitution and By-Laws.
3. New Business.
4. Report of Appointed Committees.

## THIRD SESSION

**Thursday, August 17th, 8:00 A. M.**

1. Roll Call.
2. Unfinished Business.
3. Report of Committees.
4. Report of the Nominating Committee.
5. Election of Nominees.
6. Miscellaneous Business.
7. Adjournment **Sine die.**

## DELEGATES AND ALTERNATES—FIFTY-FIRST ANNUAL MEETING

NOTE: Delegates name in black face type; Alternates in light face.

Complete list of delegates and alternates to be inserted in next issue.

## GENERAL MEETING

**Wednesday, August 16, 10:00 A. M.**

**Place: Amphidrome**

**President—A. W. Hornbogen, Marquette.**
**Secretary—F. C. Warnshuis, Grand Rapids.**

1. Call to order by the President.
2. Invocation: Rev. Wm. Ried Cross.
3. Address of Welcome, Mayor I. I. Hartman.
4. Address of Welcome, P. D. Bourland, President, Houghton County Medical Society.
5. Response on behalf of the State Society, President, A. W. Hornbogen.
6. Response on behalf of the Profession of the Lower Peninsula, C. B. Burr, Flint.
7. Report of Committee on Arrangements, A. F. Fischer, Chairman.
8. Report of the House of Delegates, the Secretary.
9. Address, F. A. Jeffers, Painesdale.
10. Address, "Papal Physicians," V. Rev. Francis X. Barth.
11. President's Annual Address, A. W. Hornbogen, Marquette.
12. Miscellaneous Business: Under this order it will be opportune for any member to bring before the Society any subject of general interest, either by informal discussion or formal resolution.
13. Nominations for President for 1916-1917.
14. Adjournment.

## SECOND GENERAL SESSION

**Thursday, August 17th, 11:30 A. M.**

1. Call to order.
2. Reading of Minutes.
3. Report of the House of Delegates.
4. Miscellaneous Business.
5. Announcement of the Result of the ballot for President.
6. Introduction and Installation of the President-elect.
7. Resolutions.
8. Adjournment **sine die.**

## SECTIONAL MEETINGS

### SECTION ON GENERAL MEDICINE

Chairman—**V. C. Vaughan, Jr., Detroit.**
Secretary—**H. M. Highfield, Riverdale.**

**First Session, Wednesday Afternoon, August 16, 1:45 P. M.**

(The Secretary of the Section will collect all papers as soon as they are read).

1. The Diagnosis of Pancreatic Lesions.
   Dr. A. M. Mortenson, Battle Creek.
2. Intestinal Toxemia.
   Dr. C. D. Aaron, Detroit.
3. Recent Developments in Epilepsy.
   Dr. C. A. L. Reed, Cincinnati.

   Discussion opened by Dr. A. W. Ives, Detroit.

**Second Session, Thursday Morning, August 17, 9:00 A. M.**

4. Peace and War in the Human Organism.
   Dr. F. McDee Harkin.
5. The Roentgen Examination of the Sella Turcica.
   Dr. P. M. Hickey, Detroit.

   Discussion opened by Dr. C. A. Crane, Kalamazoo
6. Age and Arterial Degeneration.
   Dr. B. A. Shepherd, Kalamazoo.
7. The Diagnosis and Treatment of Chronic Interstial Nephritis with Hypertension.
   Dr. L. W. Howe.

   Discussion opened by Dr. W. J. Wilson, Jr. Detroit

**Third Session, Thursday Afternoon, August 17, 1:45 P. M.**

8. Election of Chairman.
9. Symposium on Public Health and Tuberculosis.

   The Campaign Against Tuberculosis.
   Dr. W. DeKliene, Lansing.

   The Tuberculosis Problem.
   Dr. A. F. Fischer, Hancock.

   Etiology and Diagnosis of Enlarged Bronchial Glands in Infancy and Childhood.
   Dr. C. H. Johnston, Grand Rapids.

   The Treatment of Enlarged Bronchial Glands in Infancy and Childhood.
   Dr. H. M. Rich, Detroit.

   Discussion opened by C. G. Parnell, Jackson; J. S. Pritchard, Battle Creek.

### SECTION ON SURGERY

**First Session, Wednesday Afternoon, August 16th, 1:45 P. M.**

Chairman—**Alex. McKenzie, Port Huron.**
Secretary—**A. W. Blain, Detroit.**

(Program in next issue.)

## SECTION ON GYNECOLOGY AND OBSTETRICS

**First Session, Wednesday, August 16th, 1:45 P. M.**

Chairman—**C. E. Boys, Kalamazoo.**

Secretary—**Henry J. Vandenburg, Grand Rapids.**

1. Symposium on: "Gynecological Neurosis."
   (a) W. P. Manton, Detroit.
   (b) Reuben Peterson, Ann Arbor.
   (c) R. R. Smith, Grand Rapids.
   Discussion led by Dr. C. D. Camp, Ann Arbor.

**Second Session, Thursday Morning, August 17th, 9:00 A. M.**

2. Sarcomatous Degeneration of Uterine Fibroids.
   Dr. Frank C. Witter, Petoskey.
3. X-Ray Findings in Pelvic Conditions.
   Dr. James T. Case, Battle Creek.
4. Retroversion of Uterus and Its Correction.
   Dr. Edw. T. Abrams, Hancock.
5. End Results in 100 Round Ligament Operations.
   Dr. H. W. Hewitt, Detroit.

**Third Session, Thursday Afternoon, August 17th, 1:45 A. M.**

6. Election of Chairman.
7. Symposium on: The Hemorrhages of Pregnancy.
   (a) The First Half of Pregnancy.
   Leslie H. DeWitt, Kalamazoo.
   (b) The Latter Half of Pregnancy.
   Alexander M. Campbell, Grand Rapids.
   (c) Post Partum Hemorrhages.
   George L. LeFevre, Muskegon.

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## SECTION ON OPHTHALMOLOGY, OTOLARYNGOLOGY

Chairman—**Stanley G. Miner, Detroit.**

Secretary—**Wilfred Haughey, Battle Creek.**

**First Session, Wednesday, August 16th, 1:45 P. M.**

1. The Traumatic Transplantation of Cilia into the Anterior Chamber.
   Dr. Howell L. Begle, Detroit.
2. Bacteriology of Acute Ear Infections.
   Dr. Edward J. Bernstein, Kalamazoo.
3. Some Phases of the Anatomy of the Nose and Accessory Sinuses. Lantern Slide Demonstrations
   Dr. Hanau W. Loeb, St. Louis, Mo.
4. Removal of One Vocal Cord for Abductor Paralysis.
   Dr. Charles H. Baker, Bay City.

**Second Session Thursday, August 17th, 9:00 A. M.**

5. Report of Two Cases of Labyrinthitis Complicating Acute Suppurative Otitis Media.
   Dr. Don M. Campbell, Detroit.
6. Macroglossia Lymphangioma.
   Dr. Wilfrid Haughey, Battle Creek.

**Third Session, Thursday, August 17th, 1:45 P. M.**

7. Election of Chairman.
8. Syphilitic Iritis.
   Dr. Peter J. Livingstone, Detroit.
9. Antral Operations From the Standpoint of Oral Surgeons.
   Dr. Charles H. Oakman, D. D. S., Detroit.

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## PROGRAM OF THE COUNTY SECRETARIES' MEETING, TUESDAY EVENING, AUGUST 15

President—**F. C. Kinsey, Grand Rapids.**

Secretary—**Alex McKinney, Saginaw.**

PRESIDENT'S ADDRESS. (Five minutes).

"Some Secrets Told Through a Megaphone."
Dr. Frank Cameron Kinsey, Grand Rapids.

PHASES OF COUNTY SOCIETY WORK. (Strictly limited to three minutes).

"Getting Out a Good Attendance."
Dr. Leslie H. S. DeWitt, Kalamazoo.

"Problems of a County Society."
Dr. H. T. Carriel, Marquette.

"The Society Secretaryship: An Office Worth While."
Dr. A. R. McKinney, Saginaw.

"Attendance and Plans for Securing Same."
Dr. Otto L. Ricker, Cadillac.

"The Big Problem of the Small Society."
Dr. Wm. W. Arscott, Rogers City.

"Programs."
Dr. R. C. Winslow, Sault Ste. Marie.

"Financing a Medical Society."
Dr. Geo. E. Moore, Ironwood.

"The County Secretary as a Peacemaker."
Dr. J. L. Nitterbauer, Ontonagon.

"Social Affairs."
Dr. Geo. A. Conrad, Houghton.

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## ENTERTAINMENT FEATURES

TUESDAY EVENING, AUGUST 15: Amphidrome. Smoker and Buffet Luncheon with Entertainment.

WEDNESDAY EVENING, AUGUST 16: Masonic Temple. President's Reception, followed by a Smoker and Entertainment.

LADIES. This will be announced later.

Automobile Trips through the Copper Country and Mines will be arranged and every attendant will have an ample opportunity of visiting the many points of interest.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL



EDITOR
FREDERICK C. WARNSHUIS, M.D., F.A.C.S.
Grand Rapids, Mich.

All communications relative to exchanges, books for review, manuscripts, news, advertising, and subscriptions are to be addressed to Frederick C. Warnshuis, M. D., 91 Monroe Ave., Grand Rapids, Mich.

The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

**Subscription Price—$3.50 per year, in advance.**

**July.**

## *Editorials*

### HEALTH INSURANCE.

This method of providing medical care to the wage earner is of special importance. The legislative session of 1917 doubtless will see a health insurance bill introduced as has already been done in Massachusetts, New York and New Jersey. Congress is appointing a commission to study the question, while California already has an official commission actively at work.

We are calling the attention of Michigan physicians to this important movement to stimulate intelligent discussion of the inherent problems and to institute a concerted course of action. In order that the scope and extent of the movement may become apparent we are publishing a Tentative Draft of a Proposed Act with such comment as has been made by the Committee on Social Insurance of the American Association for Labor Legislation.

### NEED FOR HEALTH INSURANCE

The social aspects of sickness received comparatively scant attention until careful estimates revealed that 3,000,000 persons in the United States are sick at any one time, that each of our 30,000,000 wage-earners loses on an average approximately nine days from this cause yearly, that the cost of medical treatment is $180,000,000 annually, and that the resultant annual wage loss totals $500,000,000.

Wage studies show that the slender savings of workingmen are inadequate to meet the burden of sickness. One study has revealed that sickness is a very serious disabling condition in 75 per cent. of the families under the care of the New York Charity Organization Society, while the United States Immigration Commission of 1909 states that sickness was the apparent cause of poverty in 38 per cent. of the 31,481 charity cases studied. Until some means is devised to prevent illness, and to distribute its cost, sickness will continue to produce poverty and dependence.

Unfortunately, although much of it is preventable, there are no signs that sickness in America is diminishing. Instead, the deaths in middle life, due to degenerative diseases, have increased during the last twenty-three years in the United States by 40 per cent; whereas during the same period Prussia, under compulsory health insurance, has markedly improved its national vitality and increased the average span of life.

The responsibility of phosphorus, lead, and other industrial poisons for sickness is so easily demonstrable that in some states workmen's compensation now covers not only industrial accidents, but also definitely occupational diseases. The extension of such compensation would not, however, meet the whole need, because it would cover only a small portion of the sickness among the industrial population. Nevertheless, evidence is accumulating which shows the relation between dust, fatigue, insanitary conditions, and general ill-health. For each 100 men in the Leipzig fund engaged in the lime and cement industries, for example, there are sixty-five cases of sickness a year; whereas among office employees there are but twenty-one cases. Each cement and lime worker loses on an average 13.6 days a year because of sickness; the average office employee but 5.8 days. Evidently health is not solely due to individual habits, but is due in large measure to industrial occupation.

Already workmen have realized the acuteness of the sickness problem, and have begun to make collective provision on an insurance basis. A few trade unions offer sickness benefits, and various groups of workers have formed benefit societies. Employers, too, have recognized the need, and have begun to establish sick benefit funds for their workmen. These provisions, fragmentary as they are, show that both workmen and employers recognize the need for action, and that it is desirable to provide a com-

prehensive system of health insurance to embrace all wage-earners.

By properly distributing the cost between workmen, employers, and the state, the burden will be made lighter and economies can be effected which are impossible for the individual. Moreover, a comprehensive insurance system, desirable in itself, will stimulate, just as surely as workmen's compensation acts have done, efforts to minimize the cost by preventing sickness, and will thereby improve the health of the nation.

## HEALTH INSURANCE STANDARDS

1. To be effective health insurance should be compulsory, on the basis of joint contributions of employer, employee and the state.
2. The compulsory insurance should include all wage workers earning less than a given annual sum, where employed with sufficient regularity to make it practicable to compute and collect assessments. Casual and home workers should, as far as practicable, be included within the plan and scope of a compulsory system.
3. There should be a voluntary supplementary system for groups of persons (wage workers or others) who for practical reasons are kept out of the compulsory system.
4. Health insurance should provide for a specified period only, provisionally set at twenty-six weeks (one-half year), but a system of invalidity insurance should be combined with health insurance so that all disability due to disease will be taken care of in one law, although the funds should be separate.
5. Health insurance on the compulsory plan should be carried by mutual local funds jointly managed by employers and employees under public supervision. In large cities such locals may be organized by trades with a federated bureau for the medical relief. Establishment funds and existing mutual sick funds may be permitted to carry the insurance where their existence does not injure the local funds, but they must be under strict government supervision.
6. Invalidity insurance should be carried by funds covering a larger geographical area comprising the districts of a number of local health insurance funds. The administration of the invalidity fund should be intimately associated with that of the local health funds and on a representative basis.
7. Both health and invalidity insurance should include medical service, supplies, necessary nursing and hospital care. Such provision should be thoroughly adequate, but its organization may be left to the local societies under strict governmental control.
8. Cash benefits should be provided by both invalidity and health insurance for the insured or his dependents during such disability.
9. It is highly desirable that prevention be emphasized so that the introduction of a compulsory health and invalidity insurance system shall lead to a campaign of health conservation similar to the safety movements resulting from workmen's compensation.

## TENTATIVE DRAFT OF AN ACT

Submitted for criticism and discussion by the Committee on Social Insurance of the American Association for Labor Legislation.

The British title, "Health Insurance," is used instead of the German "Sickness Insurance," because it calls attention to the main object of the act, the conservation of health, that is, the prevention and treatment of sickness, as well as provision of financial benefits.

Section 1. TITLE. This chapter shall be known as the Health Insurance Act.

Section 2. DEFINITIONS. When used in this act:

"Commission" means the Social Insurance Commission;
"Fund" means a local or trade fund, as the case may be;
"Society" means an approved society;
"Carrier" means the society or fund which carries the insurance;
"Insurance" means health insurance under this act;
"Disability" means inability to pursue the usual gainful occupation.

### PERSONS INSURED

The principle of compulsion has been adopted because authorities are pretty generally agreed that this is the only method to reach the poorest paid and the most improvident workers, who obviously most need the benefits offered by an insurance scheme. Thus in Great Britain, where voluntary sickness insurance had an exceptional development, only the better paid workers were insured, and it was found necessary in 1911 to enact a compulsory measure to give the whole population the necessary protection. In addition, compulsion to insure reduces the administrative expenses otherwise involved in canvassing for business; thus in Great Britain the administrative cost of the compulsory health insurance law is but 14 per cent. of the receipts, whereas the societies which collect from house to house small premiums for burial insurance spend 37 per cent. of their total income for management. Compulsory insurance, through the certainty that each fund will have a regular accession of young lives every year, allows the younger members who have overpaid in their youth to benefit in old age by the overpayments of the incoming generation, does no injustice to the individual worker, and therefore makes possible the avoidance of

the reserve fund of private insurance. These savings make it possible to offer larger benefits for the same contributions than would be possible under voluntary insurance.

Moreover, European experience is strongly in favor of compulsion, and in no country in which it has been introduced has it been subsequently abandoned. Even in the United States compulsion is not unknown, for compulsory hospital funds are very common in the mining regions and on railways, affecting thus the highest as well as some of the lowest paid labor in the country.

Employed persons only are included, except that medical attendance is to be given to the families. The wage-earner is usually the breadwinner of a family; his illness is normally an economic as well as a physical misfortune; his needs are therefore different from those of the classes not so directly dependent on health for their livelihood, or those of the non-wage-earning members of a family.

German and English precedents are followed by including under compulsory insurance all manual workers, whatever their earnings, and in limiting compulsory insurance for other employees, mostly clerks and foremen, to persons earning less than $1,200 a year. (Sec. 3.) The only exception to the general rule of compulsion is made for the case of home workers and casuals. Where a person works only occasionally, his contributions would be so few and scattered as not to form a proper basis for his benefits, and he will usually be dependent either on other members of his family, on other means, or on charity. Power should be vested in a public authority to make special provision for or to exempt any such cases from the insurance by a general regulation. (Sec. 4.) Following all European acts, provision is made for voluntary insurance of practically all working people not under compulsory insurance, and of small employers. It is particularly desirable that former employees who have been long insured should be enabled to continue their insurance. Voluntarily insured persons have the right to enter the compulsory mutual funds, and so to participate in their benefits and management. (Secs. 5, 35.)

Section 3. COMPULSORY INSURANCE. Every person employed in the state at manual labor under any form of wage contract, unless exempted under Section 4 of this act, and every other employee whose remuneration does not exceed $100 a month, shall be insured in a fund or society, except employees of the United States and except employees of the state or of municipalities for whom provision in time of sickness is already made through legally authorized means which in the opinion of the Commission are satisfactory.

Section 4. HOME WORKERS AND CASUAL EMPLOYEES. Special regulations shall be made by the Social Insurance Commission for the insurance of home workers and casual employees, or for their exemption from compulsory insurance.

Section 5. VOLUNTARY INSURANCE.

Self-employed persons whose earnings do not exceed $100 a month on an average;

Persons formerly compulsory insured who, within one year from the date on which they cease to be insured, apply for voluntary insurance;

Members of the family of the employer who work in his establishment without wages, may insure themselves voluntarily in the local or trade funds of the locality in which they live and of the trade at which they are employed, subject to conditions of this act.

### BENEFITS

When the breadwinner of a family falls ill, he needs not only medical care, but also, usually, a sufficient cash benefit to insure the support of himself and of his dependents. It is essential that the two benefits be associated in the same organization, both for economy and convenience of administration, and also to meet effectively the abuse of malingering. The public interest in the insurance, the improvement of the health of a large and peculiarly threatened class of the community, can only be adequately met by the provision for medical attendance. The same public interest demands the extension of this benefit to the dependent members of the families of the insured, provided for in American hospital funds and in German sick insurance organizations. The state's subsidy is designed in part to cover the expense of this extension which would not constitute a large percentage of the total cost. (Secs. 6-17.)

Proper provision for medical care is one of the most important problems in the efficient administration of health insurance. The tentative plan—many of the details of which should be left to regulations to be made by the Commission and the medical advisory board—allows each fund or approved society to select the method of administration suitable to local conditions. Where the fund chooses the panel system, any legally qualified physician may join the panel, and the insured workmen shall have free choice among physicians undertaking insurance practice. Since this system may not prove practicable in all districts, freedom should be left to the funds to provide medical care through other methods, such as salaried physicians, among whom there should be reasonable

free choice, through physicians responsible for specified districts, or through any other method approved by the Commission. (Secs. 9-11.)

To avoid some of the recognized shortcomings of foreign systems, certain safeguards have been inserted. For instance, the limitation placed upon the number of insured patients whom a physician may treat will go far toward preventing a repetition of the British experience whereby, under a system of free choice of physician, one-fifth of the doctors are, in many towns, treating one-half the insured population. Moreover, since this limitation is calculated with reference to the probable number of sick days which a doctor is likely to have in charge, it will prevent extreme cases of overwork caused by too large numbers of insured patients. In the interests of patients, doctors, and funds alike, it is highly desirable to separate the duty of certifying a person as eligible for cash benefit from that of treating him, and for this and for supervisory purposes a fund may employ a medical officer. (Sec. 11.)

The question of method of payment to physicians is an especially complex one on which the committee has not reached definite conclusions, although it offers the following points for discussion:

The capitation payment, of so much per person per year, common now in lodge practice, has in it elements which bring about an undue amount of work, and in turn forces neglectful, hurried service to the patients. Another plan is that of engaging a salaried physician, similar to the arrangements now made by many railroads. Since no fund could employ many physicians, the limited choice of doctor might be unfavorably regarded by some of the insured persons. The advocates of this system claim that it offers peculiar advantages of selecting the physicians most desirable for this work, and thus of obtaining better service. A third method, payment per visit, is also possible. To the medical profession this method may be preferable because it establishes a quantitative relation between services and remuneration, and to the patient because it probably secures more careful attention from the doctor and thus eliminates the chief fault of the capitation system. On the other hand, medical care under this system may put a heavier burden upon the funds administering benefits. A compromise between this and capitation may be made by which a total sum, calculated on the per capita basis, is distributed among physicians in accordance with the services rendered by each. Instead of the elaborate fee schedule common under workmen's compensation, a more simple arrangement is made whereby a physician is paid pro rata for office and house visits. Although this effectively meets the chief objection to a capitation payment, it may be undesirable to the physician since the actual payment for each visit may decrease in proportion as work increases. However, the provision of a fixed amount divided according to services has administrative advantages since the total amount paid for medical aid is a fairly constant charge upon each fund.

But whichever system be adopted, one thing is clear: all medical service to the insured will be paid for, including the unremunerated dispensary practice of to-day. The problem becomes one of deciding which method of arranging for the 100 per cent. collections of the future is preferable, in the interests alike of patients, doctors, and administrators.

Representation of the medical point of view in the administration is important. The need is met by the presence of a doctor on the Social Insurance Commission and by provision for consultation with representatives of the medical profession on medical matters. This secures a hearing to the medical point of view on both state and local problems.

The necessary supervision may be obtained through medical officers employed by the funds, while matters in dispute may be referred to special committees, both state and local. To these committees, representing the various interests, power might well be given to remove undesirable practitioners from insurance practice, subject to an appeal to the Commission.

Provision for maternity benefit is included, since childbirth may be assimilated with sickness in its physical and economic effects, and since the interest of the public in better care of mothers is clear. The prohibition placed in some states upon the industrial employment of women just before or after childbirth, in addition to the financial loss involved in her absence from work emphasizes the desirability of providing a cash benefit during her inability to work just as cash benefit is provided for incapacity for other causes. Moreover the annual occurrence in the registration area of 10,000 deaths of mothers from causes connected with childbirth and of 52,000 deaths of infants from diseases of early infancy—many of which are preventable—make it imperative to provide more adequate care. The importance of this provision is reflected in the fact that maternity

benefits are universally included in European systems. Provision for maternity benefit has always been a feature of the model Health Insurance bill. In an effort to meet objections from one source, however, this feature was left out of the bills as introduced in 1916. This omission led to much adverse criticism. (Sec. 18.)

Funeral benefits are the most urgently felt insurance need of the classes subject to this act. They are included in most compulsory foreign systems, and are provided for in most systems existing in America. As one of the benefits under sickness insurance, their cost would be very small in proportion to what it is at present, and also in proportion to the total amount of benefits. The present great cost of premium collection for burial insurance will be done away with and the added cost of administration of the system will be negligible, while the relief afforded to the poorer classes of working people, in comparison to the heavy cost of securing burial insurance at present, will go far towards paying their share of the contributions for all benefits. (Sec. 19.)

Section 6. CASES IN WHICH PAID. Insured members shall receive benefits in case of any sickness or accident or for death, not covered by workmen's compensation.

Section 7. MINIMUM BENEFITS. Every carrier must provide for its insured members as minimum benefits:

Medical, surgical and nursing attendance;
Medicines and surgical supplies;
Cash benefits;
Maternity benefits;
Funeral benefit;
Medical and surgical attendance and medicines for dependent members of their families.

Section 8. BEGINNING OF RIGHT. Insurance, with the exception of maternity benefits, begins with the day of membership. The maternity benefits shall be payable to any woman insured against sickness for at least six months during the year preceding the confinement, or to the wife or widow of any man so insured.

Section 9. MEDICAL, SURGICAL AND NURSING ATTENDANCE. All necessary medical, surgical and nursing attendance and treatment shall be furnished by the carrier from the first day of sickness during the continuance of sickness but not to exceed twenty-six weeks of disability in any consecutive twelve months. In case the carrier is unable to furnish the benefit provided for in this section, it must pay the cost of such service actually rendered by competent persons at a rate approved by the Commission.

Section 10. MEDICAL SERVICE. The carriers, subject to the approval of the Commission, shall make arrangements for medical, surgical, and nursing aid by legally qualified physicians and surgeons, and by nurses or through institutions or associations of physicians, surgeons, and nurses. Provision for medical aid shall be made by the carriers by means of either:

1. A panel of physicians to which all legally qualified physicians shall have the right to belong, and from among whom the patients shall have free choice of physician, subject to the physician's right to refuse patients on grounds specified in regulations made under this act; provided, however, that no physician on the panel shall have on his list of insured patients more than 500 insured families nor more than 1,000 insured individuals;
2. Salaried physicians in the employ of the carriers among which physicians the insured persons shall have reasonable free choice;
3. District medical officers, engaged for the treatment of insured persons in prescribed areas;
4. Combination of above methods.

Section 11. MEDICAL OFFICERS. Each carrier shall employ medical officers to examine patients who claim cash benefit, to provide a certificate of disability, and to supervise the character of the medical service in the interests of insured patients, physicians, and carriers.

Section 12. MEDICAL AND SURGICAL SUPPLIES. Insured persons shall be supplied with all necessary medicines, surgical supplies, dressings, eyeglasses, trusses, crutches and similar appliances prescribed by the physician, not to exceed $50 in cost in any one year.

Section 13. HOSPITAL TREATMENT. Hospital or sanatorium treatment and maintenance shall be furnished, upon the approval of the medical officer of the carrier, instead of all other benefits (except as provided in Section 16), with the consent of the insured member, or that of his family when it is not practicable to obtain his consent. The carrier may demand that such treatment and maintenance be accepted when required by the contagious nature of the disease, or when in the opinion of its medical officer such hospital treatment is imperative for the proper treatment of the disease or for the proper control of the patient. Cash benefit may be discontinued during refusal to submit to hospital treatment. Hospital treatment shall be furnished for the same period as cash benefit. This benefit may be provided in those hospitals with which the funds and societies have made satisfactory financial arrangements which have met the approval of the Social Insurance Commissioners, or in hospitals erected and maintained by the funds and societies with the approval of the Commission.

Section 14. ARBITRATION COMMITTEE. All disputes between the insured and physicians, or between funds and physicians concerning medical benefits shall be referred to special committees composed of representatives of the interests concerned with an impartial chairman appointed by the Commission, with an appeal to the Commission.

Section 15. CASH BENEFIT. A cash benefit shall be paid beginning with the fourth day of disability on account of illness; it shall equal two-thirds (66⅔ per cent.) of the weekly wages of the insured member. It shall be paid only during con-

tinuance of disability, and shall not be paid to the same person for a period of over twenty-six weeks in any consecutive twelve months.

Section 16. CASH BENEFIT TO DEPENDENTS. A cash benefit equal to one-third of the wages of an insured member receiving hospital treatment shall be paid to his family or other dependents while he is in the hospital.

Section 17. PERIODS OF PAYMENT. Cash benefits shall be paid weekly where possible, and in no case less frequently than semi-monthly.

Section 18. MATERNITY BENEFITS. Maternity benefits shall consist of:

All necessary medical, surgical and obstetrical aid, materials and appliances, which shall be given insured women and wives of insured men;

A weekly maternity benefit, payable to insured women, equal to the regular sick benefit of the insured, for a period of eight weeks, of which at least six shall be subsequent to delivery, on condition that the beneficiary abstain from gainful employment during period of payment.

Section 19. FUNERAL BENEFIT. The carrier shall pay the actual expenses of the funeral of a deceased insured member, as arranged for by the family or next of kin, or in absence of such by the officers of the fund, up to the amount of $50. The funeral benefit shall be paid in case of death of a former member while in receipt of cash benefits, or death within six months after discontinuance of cash benefits because of the exhaustion of the time limit, provided he has not, within those six months, returned to work.

Section 20. ADDITIONAL BENEFITS. The carriers may grant additional or increased benefits, with the consent of the Commission.

Section 21. EXTENSION OF INSURANCE. When contributions cease on account of unemployment not due to sickness, the insurance shall continue in force for one week for each four weeks of paid up membership during the preceding twenty-six weeks.

CONTRIBUTIONS.

If a mutual organization of employers and employees is to manage the insurance under the supervision of the state, it is important that the two elements should feel a concern in keeping down the sickness rate and in preventing malingering. The most effective way of securing this result is to divide the pecuniary burden and thus make any increase in cost immediately felt by all parties concerned, so that the representatives of the various interests on the governing boards of the mutuals would be required to show reasons for and results from their expenditures. The influence of the employees as recipients of benefits, and state supervision, will prevent undue decrease of benefits, while the interest of employees both as contributors and as recipients of benefits, joined to the interest of employers as contributors, will tend to prevent extravagance and fraud. The contribution of the state will not only justify state regulation, but will interest the public at large and state departments in the promotion of the public health.

If employers and employees are to have an equal share in the administration of the mutual funds, their contributions should be equal. The share of the state, one-fifth, is enough to interest the public in the results of the insurance, while it is not so large a share of the actual cost that its temporary withdrawal by an economical legislature or executive would fatally cripple the insurance fund. (Sec. 22.)

More weighty than the argument of expediency is that of justice. The state now recognizes its duty as a guardian of the health of those of its people less able to care for themselves, by factory and housing laws, by free hospitals and dispensaries supported by municipalities and resorted to by a large and ever-growing proportion of the poorer classes; the common danger from communicable diseases has made increasingly clear the benefit to all from a broad and effective health campaign. Why should not the general public, through the state, contribute to what has proved in other countries the most powerful agency for sickness prevention, Health Insurance?

The share of industry in causing sickness is well recognized. Not only the more clearly defined industrial diseases like lead poisoning and caisson sickness, but also general diseases, tuberculosis, anemia, digestive and nervous disorders, are partly or wholly caused by dust, speeding up, monotony, long hours, or other conditions associated with modern business. Aside, therefore, from the advantage of interesting the employer financially in decreasing sickness by improving working and living conditions, and from his gain by a healthier working force, there is ample justification in requiring industry as such to contribute to the insurance. (Secs. 22-24.)

No new burden will be imposed on the employees. Investigators for the United States Bureau of Labor Statistics and for private institutions agree that at least 4 per cent. of the income of working class families goes for care of sickness or for burial insurance. Based on German experience, as noted hereafter, this would be about the total amount required for all the benefits in this draft, and would be divided among employer, worker and state, so

that the results of the insurance would be an actual lowering of the item of cost of sickness and burial in the family budget. Moreover, the benefits obtainable in such a subsidized system are greater than those which the workers' unaided contributions could purchase.

On the assumption that 4 per cent. of the wages will be required for the benefits provided in this draft, about what the German experience shows would be necessary, the total contributions for a man earning $600 would be $24 a year, or $2 a month. He would pay 80 cents a month, the employer 80 cents, the state 40 cents. Most mine hospital funds charge the employee $1 a month for medical attendance for sickness and trade accidents alone, usually including his family. (Secs. 23, 24.)

The plan of decreasing the employee's contribution as his wages decrease is adopted from the British act. The argument that his contribution would be no new burden on the individual employee loses force as wages approach the bare subsistence level, and it is therefore only reasonable that the industries which pay extremely low wages should bear an increasing share of the burden of sickness which often results directly from insufficient nourishment or poor housing. Section 22 will decrease the employees' contribution, normally 50 per cent. of the joint contribution of employer and employee, by 10 per cent. for each decrease in earnings of $1 a week below $9.

If the insurance rate for each industry is not to be based on individual examination of employees, clearly impossible in a large compulsory system, there are three elements which would fix the cost of health insurance. One is age, a second the character of work, and a third, locality. This last element need not be considered in a local mutual plan. The first may be disregarded, since the constant influx of young lives will counterbalance those growing older, and, as the insured must go in when young and continue in the insurance, normally, until he is old, his own overpayments in youth will counterbalance his underpayments later in life (only instead of building up the individual reserve fund necessary in private voluntary insurance, his overpayments will be used to balance underpayments for some older man, and in turn another younger man's surplus will care for his advancing age). The second element is provided for in the draft by allowing the insurance rates for different industries to vary with the sickness ratio in each, and it may be well to go a step further and increase contributions paid by the employer in particular establishments which show a worse sickness ratio than others in the same industry. Where there are special funds for a particular industry, the question of rates takes care of itself; where several industries are associated in a local mutual, the governing board of a mutual, under the supervision of the state, may fix different rates for the different industries.

Section 22. DIVISION OF EXPENSES. The expenses of the funds shall be met by contributions from employees, employers and the state. The state shall contribute one-fifth of the total expenditures for benefits, subject to the provisions of Section 42; one-half of the balance shall be paid by the employer, one-half by the employee, except that if the earnings of the insured fall below $9 a week, the shares of the employer, employee and state shall be the proportion indicated in the following schedule:

| If earnings are under | But not under | Employer | Employee | State |
|---|---|---|---|---|
| $9 | $8 | 48% | 32% | 20% |
| 8 | 7 | 56% | 24% | 20% |
| 7 | 6 | 64% | 16% | 20% |
| 6 | 5 | 72% | 8% | 20% |
| 5 | | 80% | 0% | 20% |

In all cases the contributions shall be computed as a percentage of wages.

Section 23. AMOUNT OF CONTRIBUTIONS. The amount of the contributions shall be computed so as to be sufficient for the payment of benefits and the expenses of administration of the funds and necessary reserve and guarantee funds.

Section 24. RATES OF CONTRIBUTIONS. In funds in which employees in several industries are insured, the percentage rates of contribution may be different for different industries, according to the sickness experience.

(To be continued)

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## TUBERCULOSIS FROM THE VIEWPOINT OF PREVENTION.

Tuberculosis is only one of the many communicable diseases. The principles that govern the methods employed in the prevention of these diseases are the same for tuberculosis as for all others. While the application of the methods may vary with each one, nevertheless, the principles of prevention are uniform.

Like all other communicable diseases, tuberculosis spreads largely through direct contact. If we could isolate the dangerous cases entirely from the rest of society, the problem would be simplified very much. But the question of isolation in tuberculosis is a very difficult one as compared with that of the other preventable diseases. People who are afflicted with moderately advanced or advanced pulmonary tuberculosis would perhaps have to be isolated for

the rest of their natural lives, if we would be sure that they will never again be a danger to others. A short stay of a few months in a sanitorium does not necessarily make an open case a closed one, either temporarily or permanently. It may or it may not. We would never be certain that they would remain harmless, even after an apparent cure. Permanent and complete isolation is almost out of the question, unless we could establish colonies where the open cases could be isolated until death.

On the other hand, most of the incipient cases are not a danger to others and therefore do not require isolation. But they require attention, nevertheless, if we hope to keep them from becoming dangerous. If they are not treated, they may become open cases. They must be educated in the most modern way of treatment and it must be done either in the sanatorium or in the home. Therefore, the treatment of the early cases becomes part of the preventive work necessary, and the treatment consists almost entirely in teaching them how to live.

It would be utterly impossible to treat every case in a sanatorium. Think of treating the 20,000 to 25,000 tuberculous people in Michigan in sanatoria. It would bankrupt the state. By far the largest proportion of them, therefore, must be treated in the home through education by the physician, the nurse, literature, and all other methods at our command.

Sanatoria, preventoria, fresh air schools, and all the other recognized factors now employed for isolation and treatment, although they are extremely important, cannot fill every need. There are other factors that must be born in mind and which must be treated if we hope to eradicate tuberculosis. Poverty, over-crowding, bad housing, unfavorable industrial conditions, alcoholism, the question of tuberculous milk, etc. must all be rectified. It is important to remove the open cases from the home, to isolate and to treat them. It is important to treat the incipient cases in sanatoria or in the home, and educate them. But it is equally important that we do not allow the treated cases to return to, or the untreated masses to live in, their crowded and insanitary homes and work shops. We must not allow them to live in poverty and filth so that they will be deprived of plenty of fresh air and good food and clean surroundings. Living conditions in the home, customs and habits, ignorance and vice, the food supply, especially tuberculous milk, are responsible for a certain amount of tuberculosis. We must improve all these living conditions and we must insure a clean food supply if we hope to be successful.

The tuberculosis problem is not entirely a scientific problem, viewed from the standpoint of scientific medicine. In a much broader problem. It includes a study of social questions and their relation to disease, as well as a study of the application of the strictly scientific principles. It requires a broad knowledge of the working and the application of all the useful social activities that make for a better people as well as a healthier people.

But most important of all, we need health organization and trained health officials. We can never hope to do scientific and efficient work in the field of tuberculosis, or public health in general, unless the work is placed in the hands of trained individuals. We should organize and place competent men and women in charge, before we should proceed to do things. If we were to start in the business of manufacturing a commercial product with the expectation of making a handsome profit, we could see the sense of organizing and placing the work in the hands of individuals who are qualified. Prevention of disease is an economic problem and a business proposition. If we expect the business to bring results, we must organize on a business basis. The work must be taken out of the hands of charity and incompetence and undertaken and financed by government, through trained health departments.

We build sanatoria and place them in the control, very frequently, of those who know nothing about the running of such places. We start movements for various activities in health work, but we never give the handling of the problem a thought. We seem to feel satisfied if the work is started, regardless of control and supervision. The work will surely degenerate unless it is guided properly. Sanatoria frequently become nothing but high class boarding houses, unless they are under the supervision of responsible and trained people.

We need health organization first of all. We need more trained health officials in the medical profession, who can take charge and who will make themselves responsible for working out the details of a very complicated problem. With the right man in charge, we need not worry about the success of a community's health problems.

We can only hope to get organization through the revision of the health laws of our national, state, and local governments. Michigan needs a state law which will create efficient health supervision for every community. That, I believe,

is the first and most important step necessary in the work of eradicating tuberculosis, as well as other preventable disease.

WILLIAM DEKLEINE, Lansing.

## DETROIT MEETING, A. M. A.

The sixty-seventh annual meeting of the American Medical Association was successfully held in Detroit during the week of June 12. With 1196 Michigan physicians registered, as gleaned from the lists published in the Daily Bulletin, it becomes hardly necessary to enter into any extended description of the activities and transactions that were participated in.

The excellent and commendable manner in which the Committee on Arrangements carried out their work and the energy that they expended in providing for the requirements of such a meeting and the comfort of their guests was universally appreciated. The members of the Detroit profession are deserving of unstinted praise and thanks.

The activity that has been engaged in by our parent organization during the year just closed was clearly demonstrated in the reports of the several Councils and Committees that were rendered to the House of Delegates. These reports are too voluminous for us to reprint; we urge that every member read them as they are published in the minutes of the House of Delegates in the June 17th issue of the *Journal of the A.M.A.* By doing so one will be able to glean a new insight upon what the national association is doing for the betterment of the physician as well as for the public at large.

Dr. Charles Mayo was elected president-elect and New York City was selected as the place for holding the 1917 meeting. The House of Delegates also elected a Speaker whose duty it will be to preside over the deliberations of that body while it is in session.

## SPECIAL TRAIN.

The members are again reminded that if a sufficient number of reservations are made a Special Train will be arranged for the Houghton Meeting. This train to leave Detroit on the evening of August 14th at about 7 p. m., Grand Rapids at 11:30 p. m. It will reach Houghton on the 15th at about 2 p. m. Those desiring to travel on this train will please make their reservations before July 25. Address the State Secretary, 91 Monroe Avenue, Grand Rapids, for reservations.

# *Editorial Comments*

The increasing cost of paper has made the use of envelope wrappers for mailing *The Journal* prohibitive. Much against our wishes we have been compelled to return to the use of wrappers. Were we to continue the use of envelopes their cost for mailing one issue would reach $26.00. While on this subject we might mention that our printer lost $46.00 on our June issue, increased cost of paper, labor, ink and supplies being responsible. Our contract, however, protects us but on its expiration in October we may confidently expect to pay a higher price for the publication of the *Journal.* Then it will become imperative to either reduce its size or raise the subscription price.

Of course you are going to Houghton August 15th, 16th and 17th. You cannot afford to permit yourself foregoing this opportunity.

The doctor who supplies Insurance Companies with the data of a physical examination when filling out the certificates without charge for patients who are injured or ill is cheating himself. If you but assert your right you will secure a fee of $1.00 for this work. Why submit to being further imposed upon by supplying information that is valuable and necessary to insurance companies without charging for your services? We know of several who are being paid and you can receive a similar fee if you but insist upon it.

We requested, a few months ago, that our members submit suggestions for programs for summer meetings of our County Societies and offered prizes of text books for the three best suggestions. We received *one suggestion.* Rather a vivid comment upon our members spirit of co-operation. You, reader, contributed to that spirit of disinterestedness because you failed to show a willingness to boost or help along. Can you blame us for wondering whether it is worth the while to expend time and energy in endeavoring to create and maintain an active medical organization in our state?

## THE HOUGHTON MEETING.

In this issue the reader will find an illustrative and word description of the city of Houghton and its surrounding Copper Region. There is also imparted additional information regarding the arrangements that are being perfected for the holding of the Fifty-first Annual

Meeting of our State Society. Throughout the article there prevails a spirit of hospitableness that bids every member welcome and likewise there is implied the assurance that the profession of the Upper Peninsula will permit nothing to occur while you are sojourning among them to mar your pleasures or detract from the profitableness of the scientific session.

We are firm in the opinion that no more hearty invitation has ever been extended to the members of our State Society by any local group of members. We would indeed be discourteous and unmindful of our duties should we let a mere matter of a few miles in distance serve to dissuade one from accepting this invitation and forego participating in the activities of this meeting. Sure, we are going and in goodly numbers.

In addition to the hospitalities and pleasures that we look forward to there is another feature that exists and which will deliver to each attendant a large degree of personal benefit and professional efficiency. The Chairman and Secretaries of the four sections have been devoting a large amount of their time in perfecting and arranging the scientific papers for their section program. They have indeed prepared a truly good program and all the papers are bound to impart instructive comments upon the progress that is being made in the medical world.

We might continue and point out the asset of each paper but to do so would be imparting information that is intended for the member's profit while in attendance. We do assure you that if you desire to be abreast with the work of the men who are doing things in Michigan you cannot and should not neglect to arrange your plans so as to be in Houghton August 15,

May it never be said that the members of the Lower Peninsula were unmindful of their duty to the Upper Peninsula fellows or that we ignored their hearty invitations. Likewise let us demonstrate that the mere matter of a few miles cannot detract from our loyalty to our State Society. You members of Detroit, Ann Arbor, Jackson, Pontiac, Flint, Saginaw, Bay City, Niles, Benton Harbor and from the Southern tier of the state—you who have done so much for the success of our Society—may you hear the call, accept the invitation, and grasp the opportunity of making our Fifty-first Annual Meeting equally successful to any that we have had in the past.

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Do not forget or neglect to make your reservations for berth on the Special Train to Houghton. Better write today.

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THURSDAY, AUGUST TENTH: Tuberculosis Day for Michigan. You are urged to render your assistance in the endeavor to make this day result in the dissemination of information that will tend to rid Michigan of the presence of this White Plague.

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This issue contains but the preliminary program of the Fifty-first Annual Meeting of our Society at Houghton on August 15, 16 and 17. It is urged and expected that a goodly number of our members will endeavor to be present. Make your arrangements now to not only attend this meeting but also to accept the hospitality of the profession of the Copper Country.

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## *Deaths*

The Detroit Academy of Medicine mourns the death of Doctor W. J. Wilson of this city. His life has been a long and active one. He was busy with his practice when he was suddenly summoned Home.

Doctor Wilson was a most active and loyal Fellow of the Detroit Academy of Medicine for many years, giving the best of himself toward that body. He together with five or six other men kept this Society alive during the period of its greatest need. He was a gentleman with fine judgment and ability, willingly and cheerfully answering the demands of his calling. He was a tireless worker, dearly loved by his patients and his friends for his knowledge and his big, kind heart.

Doctor Wilson was an Elder for many years in the First United Presbyterian Church of Detroit. He gave freely of his time and help.

He will be missed socially and professionally by those of us who knew and loved him. The Detroit Academy of Medicine here extends to Mrs. Wilson and her family its sincere sympathy and assures them of its sense of a personal loss in the death of Doctor Wilson.

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**Nathan Jenks** was 44, a son of Detroit, Dartmouth and Cornell. He had a social tact and professional skill which made him highly successful in his chosen line of work. He went in and out among us in a happy, genial way which won him many friends, but for nothing, probably, shall we remember him with greater admiration than for the heroic way in which he faced the inevitable outcome of disease. Knowing too well the fate just ahead, he never faltered and was busy just as long as physical

strength permitted and cheerful with it all, even to the last. No cry escaped him, he never knew the coward's cringe. How fine a thing is to busied to the last and then go hence.

We will not mourn this Fellow of the Academy, for his life of late has said to us:

"Twilight and evening bell,
And after that the dark.
And may there be no sadness of farewell
When I embark."

And in these last few days, he has taught us the lesson of real bravery,

"Like one who wraps the drapery of his couch
About him and lies down to pleasant dreams."

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**Dr. Mary Elizabeth Newcomb-Law,** a graduate of U. of M., '90 died at her home in Windsor, Colo., February 9, 1916.

Dr Newcomb-Law was born in Blissfield, Mich., where her father was a physician for many years. After completing her medical course, she practiced in Bay City for a time, later she went east, where she held the position of physician to the Tewksbury Alms House, until she took up private practice in Lowell, Mass. She returned to Blissfield on account of the failing health of her mother, and there she continued her practice until her mother's death in 1912. She was married to John E. Law, of Windsor, Colo., in 1913 and went directly to the home.

In April, 1915 she suffered a stroke of apoplexy, never recovering from the resulting paralysis.

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**Dr. Wm. Morris** of Gagetown died at his home following a three days illness of septic pleuro pneumonia. News of his death was received with a feeling of personal loss by many, not only in Gagetown and vicinity, but throughout the country. His professional, social and political activities had made him widely known and popular.

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**Dr. Nathan Jenks** of Detroit died in Harper Hospital following an operation performed three weeks prior to his death. He was widely known in medical circles for his expert knowledge in obstetrics.

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**Dr. W. J. Wilson, Sr.** of Detroit was a street car victim. Dr. Wilson was riding a motorcycle when he was struck by a street car. He was rushed to the hospital in a police ambulance but did not regain consciousness, death occurring two hours later after he arrived at the institution. His skull was fractured and he was internally injured. Dr. Wilson had practiced in Detroit for thirty-seven years and was highly respected by all who knew him.

**Dr. A. T. Bodie** of Bellaire died June 3. His body was found near the roadside a few miles from Bellaire. He had started out to make a call when, it is supposed, something went wrong with his auto and he started to make his way by foot and was overtaken with an attack of apoplexy. Dr. Bodie was about sixty years old and has been practicing medicine in this vicinity for about thirty years.

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**Dr. W. H. Bills** of Allegan died June 10. He was one of the most widely known residents of Allegan county in which he resided more than forty years. Dr. Bills was prominent in public affairs. He had charge of the Humane Society in that vicinity and was also a member of the Library Board. At the time of his death he was physician for the Pere Marquette Railroad Company. He was a speaker of more than ordinary ability and gave many dedicatory addresses there and elsewhere.

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## *State News Notes*

### WARNING.

We are advised that a very clever swindle is being worked by a young man calling on physicians in various sections of the country. He is fraudulently soliciting orders and collecting money for subscriptions to medical journals and for medical books published by various firms. He usually represents himself as a student, working his way through college and trying to get a number of votes to help him win a certain contest. He sometimes uses the names of L. D. Grant, H. D. Peters, R. A. Douglas and F. C. Schneider and he usually gives a receipt bearing the heading of some Society or Association, such as United Students Aid Society; the Alumni Educational League; the American Association for Education, etc.

The description given of this swindler is—young man of the Jewish type, rather slender, with very dark hair combed straight back and shows his teeth plainly when talking.

The whole scheme is a fraud. The societies mentioned do not exist. The idea is to collect money by offering special discounts and prices on medical books and journals and skip with the money.

This young man does not represent W. B. Saunders Company, whose name he frequently uses. He is a fraudulent subscription agent and physicians, generally, should be on the lookout for him.

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Mrs. W. A. Foote, widow of the founder of the Commonwealth Power company, presented to Jackson, through the city commissioners a $30,000 site

for Jackson's new $150,000 city hospital, as a memorial to her late husband. Mrs. Foote purchased for the sum named "Homewild" a magnificent estate, long the home of the family of the late Hon. P. B. Loomis, a pioneer banker and railroad builder. This property Mrs. Foote gives to the city, without any conditions whatsoever.

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A conference was held in Detroit during the fore part of June between representatives of the University of Michigan and the Detroit College of Medicine and Surgery. It is reported that the conference resulted in creating a larger sentiment than has ever existed before in favor of adopting some plan whereby the Junior and Senior students of the Medical Department of the University might avail themselves of the clinical teaching facilities that Detroit affords. A tentative plan was also presented for the organization of a Post-Graduate School. It is believed by some that these proposed innovations will now be realized.

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On the Monday preceding the first session of the American Medical Association held in Detroit there was duly organized the American Association of Industrial Physicians and Surgeons. The object of this organization is to provide an avenue for the presentation of papers and discussions relating to the problems involved in this special practice. Dr. Harry Mock, of Chicago, was elected Secretary.

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Dr. John B. Jackson of Kalamazoo announces that he is limiting his practice to internal medicine and anesthesia. He has removed his office to the offices of Dr. A. W. Crane, 420 S. Rose St. This change is made in contemplation of an association with Dr. Crane in a diagnostic and consultation practice.

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The Medical Library Association held its Ninteenth Annual Meeting in Detroit on June 12th. On Tuesday June 13th the members visited Ann Arbor and visited the University Library. At this latter session Dr. A. S. Warthin read a paper on "The Medical Library." The paper will appear in a subsequent issue of *The Journal.*

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Dr. G. A. Trueman, of Munising, mayor of the city, is suing the Ford Motor company and the W. K. Pruden Wheel company, of Lansing, for $100,000 damages because of the permanent injuries he asserts he suffered when a wheel on his Ford car collapsed on the Munising-Chatham road Nov. 2, 1914. Dr. Trueman sustained severe injuries of the head, and it was not believed he would survive. He was taken to Chicago for treatment.

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Dr. J. C. Martin has been reappointed health officer of Highland Park at a salary of $2,500 a year. The bacteriological tests have proved to be more costly when made in Detroit than when made in Highland Park. A resolution has been passed authorizing the employment of a sanitary engineer at a salary of $1,700 a year, to make the tests and work with Dr. Martin in the health department.

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The Committee on Arrangements for the Houghton meeting has planned some very attractive entertainment features for the Annual Meeting. We assure every member that the members of the profession in Houghton country have a reputation as being "a very charming and entertaining host."

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Dr. A. M. Hume, Chief Surgeon of the Ann Arbor Railroad, announces that he has arranged for a meeting of the local surgeons of his road to be held on board one of the Company's boats while enroute to the State Meeting at Houghton.

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Our members are reminded that it is essential that they renew their license for dispensing and prescribing opium or its derivatives under the Harrison act. The renewal date is July 1st of each year and the renewel fee is $1.00.

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Sleeper and Special Train reservations for all members desiring to attend the state meeting at Houghton should be mailed promptly so that the necessary arrangements may be completed.

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The staff of Harper Hospital, Detroit, conducted a series of Clinics on the Saturday of the week during which the A. M. A. convened.

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Dr. A. C. McCurdy announces the removal of his offices from 30 West Main Street, Butcher building, to Suite 605, 606 and 607 new City Bank building, Battle Creek, Mich.

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The Battle Creek Sanitarium, acting as host, entertained many physicians, from all over the country, previous to and following the meeting of the A.M.A.

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The Battle Creek Sanitarium graduated a class of fifty-nine nurses on June 7th.

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Dr. A. J. Carlson has been appointed full time health officer of Escanaba.

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## *County Society News*

### GRATIOT-ISABELLA-CLARE COUNTY

The April meeting of the Gratiot-Isabella-Clare County branch of the Michigan State Medical Society met in the Supervisor's room of the Court House in Ithaca April 20, 1916. President I. N.

Brainard presiding called the meeting to order at 1:30 p. m. In the absence of Secretary, E. M. Highfield, whom the members regretted to learn was suffering from diphtheria, the minutes of the last meeting were not read. By motion Dr. Gardner was made Secretary pro tem. The usual order of business was dispensed with and Dr. C. G. Jennings proceeded to read his paper on "Therapeutics of Diabetics." Among other things the doctor said diabetics is a functional disturbance of metabolism not an organic disease. The two conditions which kill diabetics are infection of acidosis. Regarding acidosis, 30 grams of acid sodies represented by oxybutyric acid is the maximum amount which can be with blood without the development of coma. As to treatment the Allen method is carried out in Harper Hospital. Briefly this method is divided into three stages as follows: Withdrawal of all food until urine is free from sugar. Second, the exhibition of food beginning with 5 per cent. carbohydrate vegetables together with the protein and fats until the limit of tolerance is reached or sugar again appears in the urine: Third, maintaining the patient at a stationary condition just below the limit of tolerance. It is important that diabetics do not maintain their usual weight. Great care should be used in the use of excessive amounts of fats and protein after fasting as coma is likely to develop. Cards descriptive of this method of treatment were distributed by Dr. Jennings. The paper was discussed by Dr. Pankhurst, Carney, Weller and Hume. Dr. Jennings, whose paper was greatly appreciated and enjoyed by the members of the Society, was given a vote of thanks. The following doctors were present: Carney, McLachlin, Faust, Lamb, Graham, Pankhurst, Hall, Dean, Brainard, Kilborn, Weller and Gardner. Dr. Arthur Hume of Owosso was a welcome visitor. Dr. G. E. Lamb of Farwell petitioned for membership. Petition was referred to Board of Censors. Meeting adjourned.

C. B. GARDNER, Secretary, pro tem.

The May meeting of the Gratiot-Isabella-Clare County Medical Society was held at the Elk's Club in Mt. Pleasant, May 24, 1916. President Brainard presiding. The minutes of the March meeting were read and approved; also the minutes of the April meeting were read and after correction as suggested by Dr. Graham, were approved. A communication was read from Dr. Varney of Detroit, relative to sending patients with rare skin disease to a clinic in Detroit, June 16th. The application of Dr. G. E. Lamb, which was referred to the Board of Censors of Ithaca was brought up. The Board ask that they be given further time to consider it, which was granted. By motion, Dr. C. B. Gardner was elected delegate and Dr. M. F. Brondstetter and C. M. Denny alternate to the State Society meeting in August. By motion Dr. S. E. Gardiner, J. A. Reeder and H. F. Kilborn were appointed a Medico-Legal Committee. Dr. M. F. Brondstetter then made a report of five cases of Extra Uterine Pregnancy. Nearly every member either discussed this report or reported cases of their own. Dr. C. D. Pullen then read a short paper on Cerebro-Spinal Meningitis with a report of case he has encountered. This was discussed by Drs. Reeder, Burch, Foust, Brondsetter and Pankhurst. Motion was made and carried we meet in Clare in July and have our annual picnic at Crystal Lake in August. Before the regular meeting the doctors and their wives met at the beautiful home of Dr. and Mrs. S. E. Gardiner, where a short social time was spent in visiting. At two o'clock a very delightful dinner was served at the Bennett House given by the former Isabella-Clare Medical Society. At three o'clock the ladies were taken in automobiles to the Normal May Festival and after the entertainment they returned to the home of Dr. and Mrs. Gardiner where the ladies were served light refreshments. The Mt. Pleasant members are to be congratulated for the excellent way in which they entertained the Society and the members and their wives thank the Mt. Pleasant doctors for their pleasant entertainment which was very much appreciated and enjoyed.

E. M. HIGHFIELD, Secretary.

## MONTCALM COUNTY

The regular spring meeting of the Montcalm County Medical Society was held on May 26, 1916 in the Greenville High School building. Dr. Richard R. Smith of Grand Rapids gave a lantern slide lecture on "Some Modern Methods of Diagnosis and Treatment of Fracture." Following this was a discussion on this subject and the usefulness of the radiogram was shown to be an important adjunct to the clinical findings in the diagnosis and treatment of fracture. Dr. J. O. Nelson of Howard City, Michigan gave a paper on the Medico-Legal Aspect of the Treatment of Fracture. This paper showed very careful and diligent preparation. Dr. Nelson certainly has the subject well in hand. We expect to have this valuable paper sent for publication in the *Journal of the Michigan State Medical Society.*

The meeting retired to the Hotel Phelps for refreshments and was concluded about midnight after the adoption of a revised fee bill and the transaction of other important business.

Resolutions of sympathy were extended to the family of our active and beloved brother, the late Dr. D. K. Black, whose presence and helpfulness were greatly missed in our Society. The meeting

was well attended and the interest shown indicates that we have one of the most active societies in the State and if any county can show us a more harmonious and helpful society we would be glad to hear about it.

DR. F. J. FRALICK, Secretary.

### SANILAC COUNTY

The quarterly meeting of Sanilac County Medical Society was held in the Court House, Sandusky on Tuesday, June 6, 1916 at 1:30 p. m. There was a good attendance and the session was in every way an important one for the welfare of the Society and the public. Dr. Wm. DeKleine, Director of the Michigan State Board of Health Tuberculosis Survey Department was the chief speaker, having for his subject, "The Scope of the Present Tuberculosis campaign." Other speakers were: Dr. B. E. Brush, Port Huron and Councilor, Dr. W. J. Kay, Lapeer.

The Society decided to hold monthly meetings during the months of July, August and September. The meeting in July will be held on the 18th of the month at Lexington, when invitations will be extended to the Medical Societies of St. Clair, Huron and Lapeer. At this meeting the doctors will be accompanied by their wives and the affair will take on social as well as a professional character.

J. W. SCOTT, Secretary.

### ST. CLAIR COUNTY

The regular monthly meeting of the St. Clair County Medical Society was held at the Hotel Harrington Thursday evening, May 25th, 1916.

Drs. J. Mathews and F. B. Walker of Detroit were guests of the Society. After a very enjoyable dinner the President, Dr. McKenzie, introduced Dr. J. Mathews who read a very interesting paper on "Post Mortem Findings of Cancer." Dr. F. B. Walker read a very appreciative paper on "Skull Fractures." A rising vote of thanks was extended to Drs. Mathews and Walker. Dr. Patterson of Blain was elected a member of the Society. Drs. McKenzie, M. A. Patterson and Cooper returned last week from a two weeks trip east. Dr. S. K. Smith has been confined to the house for the past two weeks.

W. W. RYERSON, Secretary.

## *Book Reviews*

RULES FOR RECOVERY FROM PULMONARY TUBERCULOSIS. A Layman's Handbook on Treatment. By Lawrason Brown, M.D., of Saranac Lake, N. Y. Second edition, revised and enlarged. 12mo, 184 pages. Cloth, $1.25 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

Dr. Brown has filled a great need and done a good service in the publication of this little book. It is written in a pleasant, concise way that is sure to reach the layman's point of view. There is a warm geniality throughout the pages that makes itself especially felt in the chapter "On Patient and Physician." Says he, "Few people realize how expensive cheap advice may prove to be."

INTERNATIONAL CLINICS. Series 26 Vol. II. A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by H. R. M. Landis, M.D., Philadelphia. Published by J. B. Lippincott Company, Price $2.00.

The interesting articles in this volume are particularly—Tetanus Lessons Gleaned from the War by J. B. Young—containing new information on the incubation period of the disease and some observations on the intra-venous treatment. There is considerable new data in the article "An Analysis of Fifty Cases of Dysthyroidism" by Jno. M. Swan. These are only two of a number of well chosen papers.

THE KINETIC DRIVE; its phenomena and control. By George W. Crile, M.D., Professor of Surgery at the Western Reserve University. Octavo of 71 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1916. Cloth $2.00 net.

Dr. Crile presents in a new and entertaining style the old Spencerian aphorism—"Life is the adjustment of internal relations to external conditions." The mechanism of vital response is delightfully portrayed. The monograph offers a fitting addition to "A Mechanic's View of Psychology." We quote, "The emotional drive with its consequences of infection, exertion, or physical injury is best met through training and education leading to philosophy of life that insulates the individual against destructive psychic stimuli.

FRACTURES AND DISLOCATIONS, With special reference to their Pathology, Diagnosis and Treatment. By Kellogg Speed, S.B., M.D., F.A.C.S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon Mercy Hospital; Attending Surgeon, Cook County and Provident Hospitals, Chicago, Illinois. Octavo, 888 pages, with 656 engravings. Cloth, $6.00, net. Lea & Febiger, Publishers, Philadelphia, New York.

In this work a successful attempt is made to teach the pathology of fractures visually. Even the educated eye of the surgeon is not always able to interpret the results shown by the Roentgenogram, so the author, assisted by an artist skilled in such work, has with infinite labor interpreted by means of original line drawings the essential features of a large number of X-ray pictures, representing all the fractures generally encountered in practice. This is a boon which is not, so far as we know, granted by any similar work.

Another innovation is introduced by bringing fractures and dislocations of anatomically related structures together, instead of treating them separately as is usual in work of this character. When it has not been possible to consider both subjects in one chapter, the fracture of a bone and the dislocation of the adjoining joint are treated in con-

secutive chapters. The advantages of such an arrangement for ready reference by student or practitioner is obvious.

This book contains exactly those suggestions which the general practitioner (who sees comparatively few of such cases) inevitably requires, and it will satisfy the busiest operating surgeon because of the wealth of helpful hints which Dr. Speed's enormous experience enables him to set before his readers. Above all, this work is modern and up to the minute in regard to the subject of which it treats.

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BLOOD-PRESSURE: ITS CLINICAL APPLICATIONS. Second Edition, Revised and Enlarged. By George W. Norris, A.B., M.D., Assistant Professor of Medicine in the University of Pennsylvania; Visiting Physician to the Pennsylvania Hospital; Assistant Visiting Physician to the University Hospital; Fellow of the College of Physicians of Philadelphia. Octavo, 424 pages, with 102 engravings and 1 colored plate. Cloth, $3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The importance of blood-pressure in diagnosis, prognosis and treatment is becoming more widely recognized every day, and with this recognition has come the creation of a literature devoted to this special field. Dr. Norris has given an adequate description of this important field, clearly elucidating the principles involved and carefully pointing out their practical applications. He has presented his subject in condensed form, and as definitely as the present state of our knowledge permits.

The first edition of this work was exhausted in considerably less than two years after publication. In the process of revision for the second edition an increase in size has been necessary in order to include a survey of the constantly growing literature on blood-pressure. Both the experimental and clinical data which has been available are included, for it is the combination of these two that the physician must rely upon when handling his cases. The author's method of discussing each part of the subject is such that his book is a well balanced presentation of the latest scientific information regarding blood-pressure and its clinical applications. It is probably the most complete and authoritative work in English on this extremely important topic. The illustrations are well chosen and a help to the easy understanding of the text.

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EMBRYOLOGY, ANATOMY AND DISEASES OF THE UMBILICUS TOGETHER WITH DISEASES OF THE URACHUS. By Thomas S. Cullen, Associate Professor of Gynecology in the Johns Hopkins University. Large octavo of 680 pages with 269 original illustrations and 7 plates by Max Brodel and August Horn. Philadelphia and London: W. B. Saunders Company, 1916. Cloth $7.50, net; Half Morocco, $9.00, net.

He who was accustomed to thinking that hernia alone comprised the only lesion of the umbilicus will experience a startling awakening when reading this new work of Cullen. The author has undertaken an extensive survey of the literature that consumed three years of time and has succeeded in classifying the lesions of the umbilicus and presents the first compilation of such diseases.

The embryology and anatomy of that region is discussed most thoroughly and excellent illustrations add to the value of the text. There then follows through 39 chapters a discussion of the diseases of the umbilicus commencing with the Infection of the Umbilicus in the new-born to Tuberculosis of the Patent Urachus. It is really a wonderful work that necessitated the expenditure of much time, study and investigation.

The text, the excellent illustrations prove that it was written by a master of ripened experience who has prepared a systematic, instructive presentation of the lesions of a region that has been the subject of but small consideration. As a result we now have for the first time a reliable treatise of the umbilical region and the pathology that it presents. We cannot but recommend it most unreservedly. The author's effort has awakened our admiration as also our respect for this truly wonderful and valuable monograph. It is bound to be ranked with the best works of our literature.

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THE ART OF ANESTHESIA. P. J. Flagg, M.D., Lecturer in Anesthesia, Fordham University Medical School, Anesthetist Roosevelt Hospital, etc. Cloth 333 pages, 136 illustrations. Price $3.50. J. B. Lippincott Co., Philadelphia.

We recognize the fact that the administration of an anesthetic is not a mechanical performance but rather an art and thus we welcome every reliable recorded series of observations on the subject. This work is a welcome and valuable treatise of the subject and is based on the author's extended experience.

The history of anesthesia is briefly considered and general anesthesia is then taken up in detail and by stages as well as by the means of several agents and avenues of administration. The preparation of patients, local anesthesia, spinal anesthesia, table positions of patients, the treatment of emergencies and post-operative recovery are all subjected to a most practical and scientific discussion. Excellent illustrations are interspersed through the text.

The work is one that should be read and studied by every practitioner and is deserving of our unstinted approval. It will do much to elevate the giving of an anesthetic and to place it on a higher basis as a special art.

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## *Miscellany*

### THE BUSINESS OF DOCTORING

There's a vast difference between being a grasping, mercenary doctor, and that type that fully appreciates the "business" side of his calling, if you please. The doctor who is afraid to collect his just dues should give a thought to his neighbor, the banker, whose very commercial existence centers around his ability to "get the money." The unfortunate who can't meet his honest debts is worthy of sympathy, but the man who can but don't or won't is not entitled to undue consideration. Understand your man, and his circumstances, then treat him accordingly. One of our advertisers this month, page VIII, possesses the necessary skill to handle obstinate cases with great success. From evidence before us, we believe they can save you considerable time, work, worry and expense in doing your collecting for **you.**